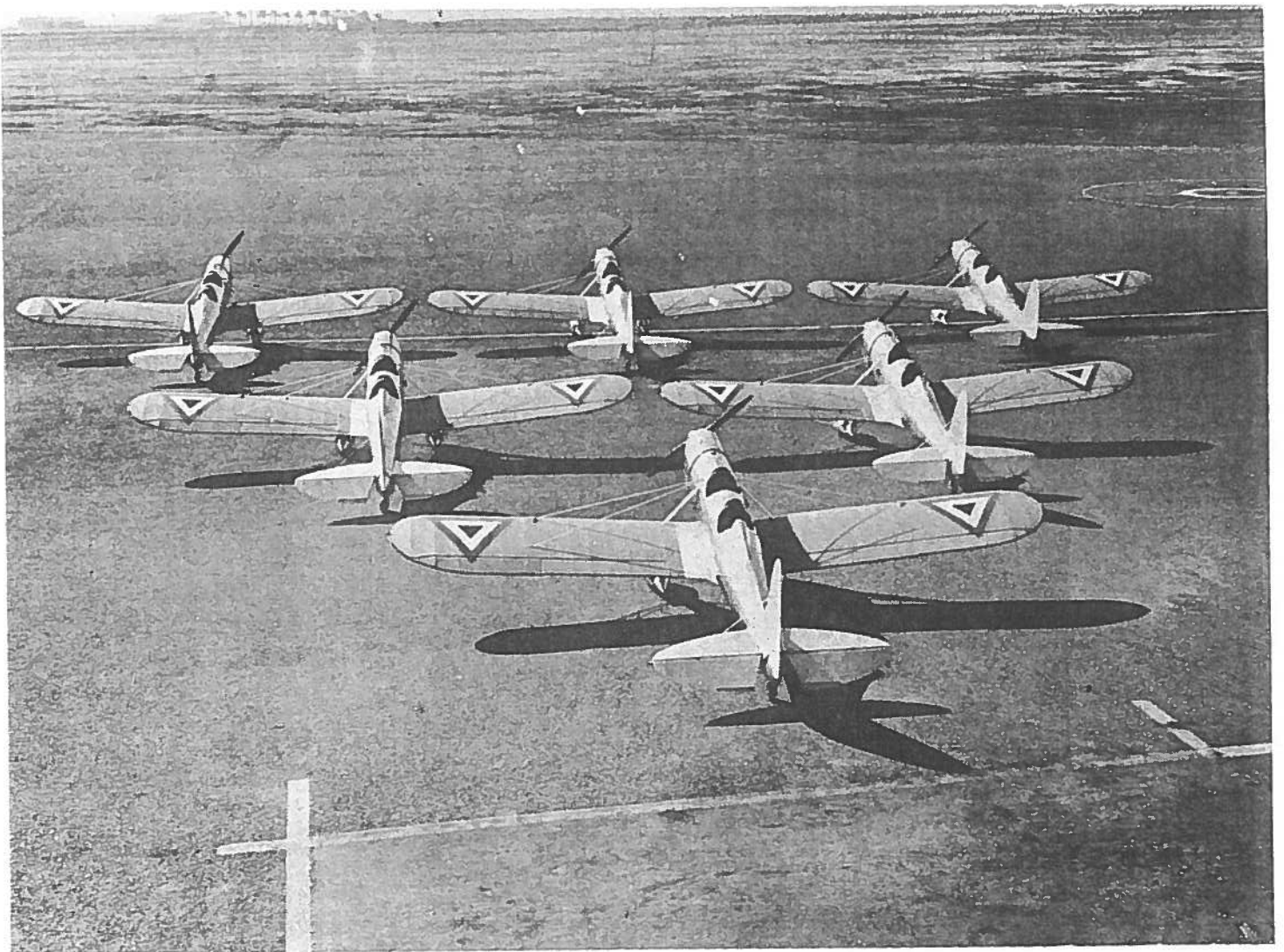


# **small air forces observer**

US \$2.00



**vol 7 no 4** (28)

**July 1983**

# small air forces observer

## the newsletter of the Small Air Forces Clearing House

SAFCH SALES SERVICE: The following are available from the editorial office (27965 Berwick Dr., Carmel, CA 93923). All prices are in US \$ and include surface postage.

### MEXICAN DECALS

- 72-0 Mexican national insignia (11 mm); 6 insignia to compliment sheets 4, 13/14, & 15. \$0.80
- 1 MEAF P-47D in the Philippines. \$1.50
- 2 FAM F-47D in Mexico (olive green). \$1.75
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- 6 FAM C-47 Dakota. \$2.00
- 7 Navy Kingfisher (wheels). \$1.75
- 8 Navy Kingfisher (floats). \$1.75
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- 10 FAM Vampire (dark green). \$1.75
- 13/14 FAM T-6 Texan (four squadrons). \$1.75
- 15 AT-6 (Escuela Militar de Aviacion). \$2.00
- 48-1 MEAF P-47D in the Philippines. \$2.00

### LGR DECALS

- 1 Mexican Air Force B-25J. \$1.75
- 2 Mexican Navy HU-16B Albatros. \$1.75
- 3 Mexican Navy PBV-5A Catalina. \$1.75

SAFO EDITORIAL POLICY: The purpose of the SAFO is to "promote interest in the history and modeling of the a/c of the smaller countries". In support of this goal, the SAFO will publish articles on all aspects of aviation, both military and civil, from all periods of time and for all the smaller countries. (1) All manuscripts submitted by members will be published in the next available issue of the SAFO. (2) Subscription money will be used only to print and mail the SAFO; there will be no "miscellaneous" column in our budget. And, (3) members are encouraged to sponsor subscriptions for organizations, libraries, individuals (especially those in countries where US funds are difficult to obtain).

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Second-class postage paid at Carmel Valley, CA 93924.

A limited number (one, unless otherwise indicated) of the following are available from the editorial office. All prices are US \$ and include surface postage.

POLISH PROFILES (TBU): RWD-8 (3), Lublin R.XIII (3), TS-8 Bies, An-2 (7), Mi-1, Mi-4 (5), MiG-3, MiG-19 (5), Yak-11 (5), Beaufighter (4), Spitfire (37), Wellington (13), & Mustang (11). \$3.00 each.

VIRUS PLASTICUS (IPMS-SWITZERLAND): One subscription to VP is available through the SAFO for \$6.00.

EN ESCALA (IPMS-BRAZIL): Vol.8 #4 Dec. '82. \$1.00.

PLANY MODELARSKIE Potez 25: Detailed scale drawings (1/13 scale). \$6.00.

MILITARY WINGS VCL. 2 by Deere: 104 pages of photos of RNZAF Avenger, Catalina, Dauntless, Harvard, Hercules, Hudson, Strikemaster, & Tiger Moth. (Incomplete printing: missing chapter on Ventura) \$5.00.

MILITAIR 82 by Andrade. (See review on page 110) \$16.00.

PM TURKEY KIT: Spitfire Vb (1/72). \$4.00.

MICRO KIT: LWS Czapla (1/72). \$5.00.

USSR KIT: Il-18 (1/100). \$7.00.

COVER COMMENTS: Ready to take off for South of the Border, the six Ryan STM trainers for the Mexican Air Force were photographed at Lindbergh Field, San Diego, California, in December 1937. (Ryan Teledyne) This photo introduces an entire issue devoted to the aircraft of Latin America with articles on Mexico, Argentina, and Brazil.

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WE GET LETTERS: The SAFCH correspondence has grown so heavy that the pile of unanswered letters is now measured in pounds rather than pages. If I haven't replied to your letter, please be patient. If you need an immediate reply, please include an SASE or IRC; these I always answer first.

RENEWAL NOTICE: Enclosed with this letter you will find the usual renewal form. Please fill this out and return it promptly to the editorial office. Just in case the form is lost, the subscription rate for Vol. 8 remains at \$6.00. Have you ever seen such a bargain? Have you considered taking out a subscription for you local library or aviation museum, or for your overseas pen pal?

| STATEMENT OF CIRCULATION, MANAGEMENT AND CIRCULATION                       |        |
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| Small Air Forces Observer  |        |
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# AUSTRALIA

APMA (Australian Plastic Modeller's Association, PO Box 51, Strathfield, N.S.W. 2135)

4/82 (32 pages) "Miracle in Gray" 4 pages with 3 pages of drawings of Mirage 'A3-25' in experimental 3-tone grey camouflage. "Evolution of an Air Force: Rhodesia to Zimbabwe" 2 pages with side-view drawings of Hart, Harvard, Spitfire F.22, & Vampire FB.9. "Stretching the Friendship" 6 pages with drawings to model a Air New South Wales Fokker F27-500 Freindship. "Kittyhawk Ia" 2 pages of drawings of 3 RAAF a/c in New Guinea 1942. "Sunshine State Squirrels" 4 pages including one photo and 3 drawings of civil Squirrels. "Kiwi Skyhawks" 3 pages with drawings of RNZAF 'NZ6201'.

# AUSTRIA

OFH NACHRICHTEN (Oesterrichische Flugzug Historiker, Kannwegasse 1/15, A-1150, Wien)

1/83 (41 pages) "Die Fliegergruppe Rot-Weiss-Rot" 7 pages including 3 photos and 3 pages of scale 3-view drawings of Cessna L-19 & Beech T-34 in Austrian civil markings and one photo of L-19 '3A-BK'. "Militarmuseum - Brüssel" 2 pages with 2 photo and list of aircraft. "Der Fokker D-VII bei der K.U.K. Luftfahrtruppe" 7 pages including photo of Austrian Fokker BI and scale side views of BI(M10), BII(M17Z), AIII(EI), DVI, and 1/72-scale 3-view drawing of Aviatik Berg DIII (seriennr. 30.27). Photo of L-60 Brigadyr "OE-BVL"

PANORAMA (IPMS/AUSTRIA, Nordmannngasse 11-13/4/6, A-1210 Wien)

5 82 (36 pages) "Der wendigste aller Kampffalken F-16 Fighting Falcon" 15 pages including 25 close-up photos and 7 pages of drawings (Israeli, Norwegian, Belgian, Dutch, Danish, and Egyptian).

6/82 (36 pages) "Swissair" 10 pages including photos of Swissair CV-240, DC-6, DC-7, C-440, Caravelle, DC-8, DC-9, B-747, & Airbus.

1/83 (36 pages) "Die Jets des Artem Iwanowitsch Mikojan: Part 3 MiG-15" 9 pages including 4 photos and 23 side-view drawings (MiG-15: USSR, Poland, East Germany, USA, Algeria, Albania, Indonesia, Egypt, & China; MiG-15UTI: USSR, Finland, East Germany, Egypt, Indonesia, Pakistan, Iraq, Poland, & Albania). Photos: United Arab Emirate C-130 '1211' and Swiss F-5E 'J-3066 Peace Alps 1'.

# BELGIUM

KIT (IPMS Belgium, Te Couwelaarlei 103 bus 21, B-2100 Deurne; 4 issues for 450 Belgian franks)

#48 (30 pages) "Les CF-104 a la Feuille d'Erable en Europe" 8 pages including 4 close-up photos and 6 pages of drawings of CAF CF-104 including '789' natural metal with white wings, '893' olive green, '753' green and grey over light grey.

# BRAZIL

SOUTH AMERICAN AVIATION NEWS (Caixa Postal 5216, 09720 Rudge Ramos, Sao Paulo; 6 issues for £7.00; back issues US \$2.00 each)

Nothing received since #31.

# CANADA

HIGH FLIGHT (Box 393, Stittsville, Ontario K0A 3G0; 6 issues for CAN \$15)

11/12 82 (40 pages) "Chronology 1930" 4 pages including 12 photos (photos of DH 60GM, Bellanca Pacemaker, Vedette, Fairchild 71B, & Avro Avian IVM). "The First CP-18" 5 pages including 17 photos. "Potato Air Force - A Story of the Vichy Air Force in French Somaliland, Part I" 5 pages including one map and 9 photos (Potez 25 & 29, Wellesley, Maryland, & Blenheim). "Distended Douglas - The Story of the Douglas Digby in Canadian Service, Part II" 4 pages including 8 photos. "Syrian Spitfire" 2 pages including 2 photos (the story of an attempt to buy surplus a/c). "Prestwick Panorama III" 4 pages including 19 photos of Canadian a/c. "1 to 401 - The Story of 1/401 Squadron, RCAF, Part IV" 8 pages including 10 photos of Hurricanes.

SAFO #28 July 1983

RANDOM THOUGHTS (IPMS CANADA, Box 626, Stn. B, Ottawa, Ontario K1P 5R7; 6 issues for \$12.00 in US, \$13.00 others)

4 82 (24 pages) "Heller SAAB 21R from their -21A Kit" one page. "Sea King - Addenda" 2 pages with 2 photos and drawings

# ENGLAND

MAGAZINE (IPMS ENGLAND, Flat 4, 18 Delancey St., London NW1 7NH; 6 issues for US \$20.00 + \$1.00 joining fee)

1 83 (24 pages) Nothing of small air forces interest.

MILITARY AVIATION REVIEW (East Cliff, Stotfield Rd., Lossiemouth, Moray IV31 6QT, Scotland; 6 issues for £10.20)

Nothing received since 6/7 82.

# FINLAND

MALLARI (IPMS FINLAND, PL 798, 00101 Helsinki 10; issues #41-44 US \$6.50, add \$1.00 for airmail and \$1.50 for personal bank cheque redemption)

Nothing received since #41.

# FRANCE

LA VITRINE DU MAQUETTISTE (IPMS FRANCE, 3 rue de l'Amiral Roussin 75015 Paris; 4 issues 60FF surface, 80FF air; back issues 12FF; "La Lettre de l'IPMS" 25FF.)

4/83 (30 pages) Nothing of small air force interest.

# GERMANY

MITTEILUNGEN (IPMS GERMANY, Oertzenweg 12b, 1000 Berlin 37; DM 42.00 Europe, DM 49.00 USA, DM 55.00 Japan, DM 61.00 Australia)

5 83 (30 pages) Nothing of small air forces interest.

# ITALY

IL NOTIZIARIO (IPMS ITALY, CP 182, 41100 Modena Ferravia)

3/4 82 (32 pages) "Un Interessante Rosatelli: Il CR.30" 6 pages including 6 photos, a 1/72-scale 3-view drawing, & 5 side-view drawings (all Italian a/c). "MB-339K 'Veltro 2' by Aeromacchi" 7 pages including 17 photos & 3-view drawing. "S.M. 79 Postbellici" one page with 3 side-view drawings.

JP-4 (CP 1550, 50100 Firenze; L 27.000 Europe, L 30.000 elsewhere)

1/83 (86 pages) Photos: Swiss Alouette III 'V-276' (color), Fuerza Aerea de Chile B-707 '902' (color), Spanish SAR C-212, Zaire T-28 '533', & Bolivian P-47 razor-back.

2/83 (86 pages) Photos: Sudan AF C-130H 'ST-AIF', Zaire Partenavia P.68C '90-XJF'; East German Ka-26 'DDR-SPN' (color); El Salvador A-37; Thai F-5E, & French Navy York 'PA 3'.

3/83 (86 pages) Photos: Algerian An-12 '7B-WAG', Norwegian Lynx '207' (color), French L-19 'CMN' (color), Swiss F-5E 'J-3021' (color), & N. Korean MiG-19 '207'. "60 Anni della Aeronautica Militare Italiana" 19 pages including 24 photos. "Un Italiano dall'Estremo Oriente" 5 pages including 4 side-view color drawings (Italy, Spain, & Peru) and sketches of interior for AB.212.

# NORWAY

LIMTUBEN (IPMS-NORWAY, PO Box 273, 2050 Jessheim; US\$ 9.00 in Europe and US\$ 11.00 in USA/Canada airmail)

Nothing received since 2/80

# SINGAPORE

MODELLERS' MONTHLY (Plastic Modellers Society Singapore, 247 Macpherson Road, Singapore 1334)

11 '82 (12 pages) 4 photos of RSAF T-33 (model)

1-2 '83 (10 pages) Nothing of small air forces interest.

SOUTH AFRICA

AFRICAN AIR REVIEW (AVIATION SOCIETY OF AFRICA, PO Box 1413, Alberton 1450; 6 issues for US \$12.00)  
Nothing received since 8-11 82

SPAIN

STAR KITS (Guitard, 43 6°. Barcelona-14 (ex Witardo), SPAIN; 12 issues 2.700 ptas in Europe and 3.100 ptas in America. Coordinator for the Americas: Georg vo Rauch)  
Nothing received since 3 82

SWITZERLAND

VIRUS PLASTICUS (IPMS SWITZERLAND, Olivenstr. 2, 9320, Arborn; 4 issues for Sfr 24)  
1 83 (34 pages) "De Havilland DH-112 Venom (6): Le Stenciling" 9 pages including 7 pages of drawings. "Die Morane Story (2)" 7 pages including 5 photos and 4 side-view drawings (Swiss machines)

USA

WWI AERO (Leonard Opdycke, 15 Crescent Rd., Poughkeepsie, NY 12601; 5 issues \$15)  
4 83 (84 pages) "Heath" 12 pages including 9 photos and scale 3-view drawing of Model 2B. "Christmas Bullet" 7 pages including 9 photos and scale drawings. "Alphonse Penaud 1850-1880" 8 pages including scale 3-view drawings. "Benoist Type XIV" 8 pages including 12 photos and scale 3-view drawing. "Ader Avion #3" one page scale 3-view drawing.

DIRTY PLASTIC (IPMS PHOENIX, 509 W. Camino Dr., Phoenix, AZ 85021; 4 issues for \$6.00.)

Spring 83 (20 pages) "Matchbox Noorduyn Norseman" 4 pages including 10 side-view drawings (USA, RCAF, RAAF, & Canadian civil).

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"I am writing to let SAFO readers know about two new magazines from Spain: STAR KITS (which was briefly reviewed in SAFO #26) and a new one called MODELISMO Y HISTORIA. As a Spanish Civil War 'freak', I am ecstatic about both the quality and the accuracy of the material published in these two magazines.

"STAR KITS #1 has an excellent article on the Fiat CR-32 'Chirri' by Rafael Varo which is comprehensive and accurate, and includes a review of the Supermodel 1/72-scale kit as well as hints on detailing, etc.; 12+ pages with 13 b&w photos from the archives of Juan Arraez Cerda and 3 profile drawings of different Spanish Civil War markings. The same issue has a Felix Tejedor article on the Spanish Civil War Ju-87B Stuka model by Airfix.

"STAR KITS #2 has an 11 page article by Arraez on the Spanish Bf-109s (on both sides) with 6 color profiles; 19 photos from Arraez' archives; drawings of personal emblems, insignia, and camouflage; and his excellent text covering the history of the Bf-109 in Spain. The quality of Arraez' work cannot be exaggerated!

"STAR KITS #3 continues the Bf-109 coverage with a 5 page article that includes 7 photos of models of the various versions of the Messerschmitt that saw combat in Spain, including an example 'captured' by the Republicans. This article is by Felix Tejedor.

"I now subscribe to STAR KITS and also have issues #4 and #5. Neither have articles on the Spanish Civil War, but I have been writing to Sr. Arraez, and he has informed me of some more fascinating articles in up-coming issues.

"All issues also contain very good articles by Jose Maria Bueno on military uniforms and the histories of such units as Irish Volunteers in the French Armies of 1745 and 1806-1810, Spanish Army of 1735, Papal Army 1860 (they fought against Garibaldi), and Irish Volunteers with the Boers in the 1897-98 War against the Brits. Issue #5 has a good Bueno (pun intended) article on the Argentine Regiment No. 1 'Patricios' with 9 color drawings of uniforms from 1805 to 1980. The Bueno article in #4 covers the uniforms of the Saragossa General Military Academy from 1882 to 1943 with 7 drawings in color. Issue #3 covers the Swiss Mercenaries in the service of the French Bourbon Kings from 1736 through 1817 with 5 color drawings. Bueno has a continuing series of drawings of the uniforms of WWII covering such diverse subjects as a Soviet 1944-45 NKVD Corporal (#2) and an Italian Motorized 'Bersaglieri' Corporal in North Africa 1940-41 (#1).

"MODELISMO Y HISTORIA is a newer magazine. The first issue has 114 pages and was planned as a Quarterly at 500 pesetas, but response to the first issue was so satisfactory as to lead to it's publication as a monthly, starting with Jan. '83 at 200 pesetas.

"#1 has an article by Jesus M. a Salas Larrazabal (author of LA GUERRA DE ESPANA DESDE EL AIRE) about the Polikarpov I-15 'Chato' in Spanish Republican service,

and it is difficult to express how pleased I am with this article. Eleven pages including a color 2-page center-fold-type drawing of Republican 'Chatos' and 'Moscas' attacking Nationalist Junkers Ju-52s, 1/72-scale color 4-view drawings of the 'Chato' including color drawings of 5 different Escuadrilla insignia, 5 'action' b&w drawings by Rodrigo Hernandez of 'Chatos' vs Fiat CR-32s, He-51s, Bf-109s, and Ju-52s. Salas' text matches the excellent art work.

"If the 'Chato' article wasn't enough, Raphael Varo has a good article on the Hawker Spanish Fury covering 6 pages with a complete text, color photos of a conversion from the Matchbox Fury I, instructions on that conversion, and detail drawings.

"Other great articles in #1 cover the Unterseeboot U-573 that became S-01 in the Spanish Navy, the WWI German A7V AFV, converting the T-62 from Soviet to Israeli, and the license-built AMX-30 tank in the Spanish Army.

"#2 has nothing on the Spanish Civil War. but it does have an excellent article on the Harrier/Matador including coverage of the Falklands/Malvinas conflict and, of course, Spanish service.

"#3 continues the Harrier coverage, concentrating on the Spanish Navy a/c with 10 color photographs (3 of the Congost/Revell 1/32-scale model). black & white side-view drawings of recent marking changes, and text by Alfonso de Carlos.

"Also in #3, Salas continues his coverage of Soviet a/c in Spanish service with an 11 page article on the Polikarpov I-16 'Mosca'/'Rata' including a 'Testimony of a Combatant' collaborating article by the Spanish Republican Ace, Francisco Tarrazona, color 4-view drawings of a Type 5, 4 different color profiles of Type 10s, color centerfold of two Type 5s, a 'Betty Boop' insignia drawing of the 1st Escuadrilla, several b&w and color photos of some 1/72-scale Congost/Revell models, and a review of the kit, and last, but not least, Salas' excellent history. What more can I say!

"I am not aware of a local distributor, but issue #3 advertises subscriptions at \$34 from Hobby Press, Apartado 54.062, Madrid, Espana."

Bill Brown (SAFCH #525), 1719 Minnie St., Port Huron, MI 40860

"The 'reviews' of the two Spanish magazines that I sent to you recently require a little follow-up:

"Apparently, STAR KITS is dead! I recently received a letter from Juan Arraez Cerda, who has resigned as 'director' of the magazine because of difficulties he was having with the publisher, I.T.C. of Barcelona. Juan has taken his staff with him to the Madrid-based MODELISMO & HISTORIA and will be publishing articles monthly in that magazine.

Juan further informed me that issue #6 of STAR KITS was ready to be printed, but he doubts that I.T.C. will get

(Continued on page 107)

# Ryan STM Trainers in the Mexican Air Force

The Mexican Military Aviation School (Escuela de Avia-cion Militar or E.M.A.) was founded on 15 November 1915. Throughout its history, the school has seen many types of training aircraft serving on its flight lines. In 1937, when the school was under the command of Lt Col P.A. Luis Farell Cubillas, a veteran flyer who had participated in various military actions, the school's equipment consisted of the six Consolidated-Fleet Model 11-A (delivered in August of 1933), six Fleet Model 11-32 (built by Fleet Aircraft of Canada and delivered in October 1936), and a number of Mexican-built Azcarate E trainers that were known as the "Aviones Blancos" (White Birds) because no one had been killed flying them. Also on hand were some Vought Ascarate Corsairs for cross-country flights and a Fairchild Kr-34.

To improve the equipment at the school, the Mexican Ministry of War and Navy placed an order in September 1937 with the Ryan Aeronautical Company of San Diego for six Ryan STA-special trainers (Ryan designation STM - Sport Trainer Military). Lt P.A. Santiago Vazquez was sent to San Diego to supervise the order and in Mexico City the brokerage firm of "Gomez and Bracho" was put in charge of the financial side of the order. All six aircraft were test flown by Paul "Pablo" Wilcox in November 1937. Before delivery, Lt Col Farell, accompanied by Capt P.A. Carlos Vergara and Mariano Munoz, visited the Ryan plant to inspect the new aircraft.

The Ryans were delivered on December 9th or 11th 1937 via train to Mexico City where they were assembled at the military airfield at Balbuena. The Ryans (c/n 182-187) were assigned the Mexican serial numbers 1-6 respectively.

At the beginning of their service life, some problems were encountered. One is mentioned in the following letter to Ryan from Lt Col Luis Farell, Director of the Military Aviation School, and dated 12 February 1938:

"We are having some problems with the brakes of the Ryan aircraft recently bought by the Mexican Government for the Military School of Aviation. Practically all of them are already out of commission due to that they wear out very soon. Somebody has suggested to use on the disc some kind of graphite lubricant or powdered graphite, but we do not want to do any experimenting without having consulted you on the matter. Therefore, please send any advice to solve the trouble." (1)

The matter was turned over to the Goodyear Tire & Rubber Company who sent the MAF complete instructions on how to get the most wear out of their brake discs.

In a recent interview (2), the Chief of the Mexican Air Force, General of Division P.A. Hector Berthier, recalled that there was another problem related to the landing gear: With the tire pressure at the recommended 6 lb/in<sup>2</sup>, the tire would frequently burst on landing. This was later resolved by raising the pressure to 12 lb/in<sup>2</sup>.

The Ryans were assigned to the Military Aviation School which was at that time located in Mexico City. The Fleets were used for primary training and the Ryans for advanced training.

One of the cadets who flew the Ryans was a Navy man, Tte de Corbeta Gustavo Melgarejo Valasco, who won his pilot wings in 1939. He stayed in the Air Force as a flight instructor and estimates (3) that his flying time in Ryans was about 90 hours. He remembers that one of the problems the Ryans had was starting them up at six on a cold morning; the oil had to be drained, warmed up, and put back again before the Ryan would start.

Berthier and Melgarejo agree about the flight characteristics of the Ryan: it was a nervous aircraft that required an experienced pilot to fly it well. It was very good for acrobatics, but it did not tolerate any pilot errors.

The Ryans were prone to spin. Consider the experience of Cadet Romero Estuvillo Cuevas. He was ordered to

take off and execute a three-turn spin. He carried out the orders but when he landed he was put under report for doing 12 turns.

In support of the statement that the Ryan was a "nervous" aircraft, it is a fact that whether there was a cadet or an instructor at the controls, the trainer always made an "S" on takeoff. In general, students were allowed into the Ryans only after 90 hours in the Fleets.

On the other hand, the instructors had to learn to fly the trainers by themselves. In the case of Berthier, when he arrived at the school, he was taken on his first flight in a STM by Capt Mariano Munoz. Munoz took off, did some maneuvers, and landed, while Berthier did nothing. After they had landed, Munoz showed Berthier the cockpit instruments and told him to take her up.

Of the six Ryans STM of the Military Aviation School, four were lost in accidents in 1938 and one more in 1939. The first Ryan to be lost was No. 6. As Tte Altamirano Espondola was coming into land at Mexico City, the Ryan turned over and crashed. The accident may have been caused by the radio battery that had been installed in No. 6 for some experiments with radio communication. It is assumed that the battery came loose from its supports and jammed the controls.

The next Ryan to go was No. 4. Capt Melgarejo remembers that Cadet Beltran Fraga was demonstrating his proficiency at performing loops when his instructor lost sight of him behind some trees. When he returned to the airfield, Capt Villaseñor Baquedano took-off with him to verify that he was doing his loops correctly, but during the flight the Ryan spun into the ground next to the airfield. Both airmen lost their lives.

During military maneuvers in the Sierra de Villa near Mexico City, Ryan No. 1 was assigned to artillery spotting. Cadets Romero Medillin and Pablo Rivas Martinez (4) mission was to observe the artillery fire and drop messages as to their observations to the artillery units. While trying to drop their message in mountainous terrain they crashed and the aircraft was destroyed. Luckily, Medillin and Martinez survived although their injuries required a stay in the hospital.

Ryan No. 2 was damaged on landing during the first flight on the type by General Gustavo G. Leon. The aircraft was repaired only to be lost while being piloted by Cadet Fernando Suarez y Suarez (5) at Toluca. The pilot was landing when the aircraft bounced back into the air hitting a flag pole with its left wing. The pilot crashed in a corral escaping with only minor injuries.

By the end of 1938, only two Ryans remained: No. 3 flown by Berthier and No. 5 flown by Capt P.A. Martin Polin Tapia.

Since Mexican Air Force Day, 15 November 1939, was the 24th anniversary of the founding of the Aviation School, an air show was organized for the general public. The show was to include a fly over of military aircraft, simulated bombing and straffing attacks, and the participation of civilian aircraft. One of the main attractions of the show was to be acrobatics by Ryans No. 3 and No. 5 piloted by Berthier and Polin respectively. General Berthier well remembers what happened that day. They were doing their acrobatic routine before the crowd when Berthier got the signal from Polin for both of them to go into a series of spins. Berthier did a 16 turn spin and recovering at 1000 ft he tried to locate Capt Polin. To his horror, he saw Polin's aircraft spinning out of control; Berthier counted 22 turns by the time the Ryan hit the ground right in front of the spectators. Capt Polin was trying to bail out and was half way out of the cockpit when the plane hit the ground. Polin was killed instantly.

With Ryan No. 5 gone, only No. 3 remained. It continued to fly in the hands of Berthier until 1940. General Berthier has the most hours flown in Ryans in the Mexican Air Force.



During 1939 and 1940 the Military Aviation School moved to Veracruz. At that time, the Director, Lt Col Farell, ordered that Ryan No. 3 not be flown. (6)

In 1940 the school moved to Guadalajara Jalisco, where the cadets occupied the Hacienda del Espiritu Santo, adjacent to the airfield. Ryan No. 3, placed in the courtyard of the Hacienda as a monument, was a favorite place for the cadets to get their pictures taken with their girlfriends.

The Ryan remained there until after the war when it was bought by a retired Captain Pilot who took it to Ensenada, Baja California, as his personal plane. The Captain's name is unknown. After he was killed in a motorcycle accident between Tijuana and Ensenada, the Ryan was brought back to the United States by Mr. Joel

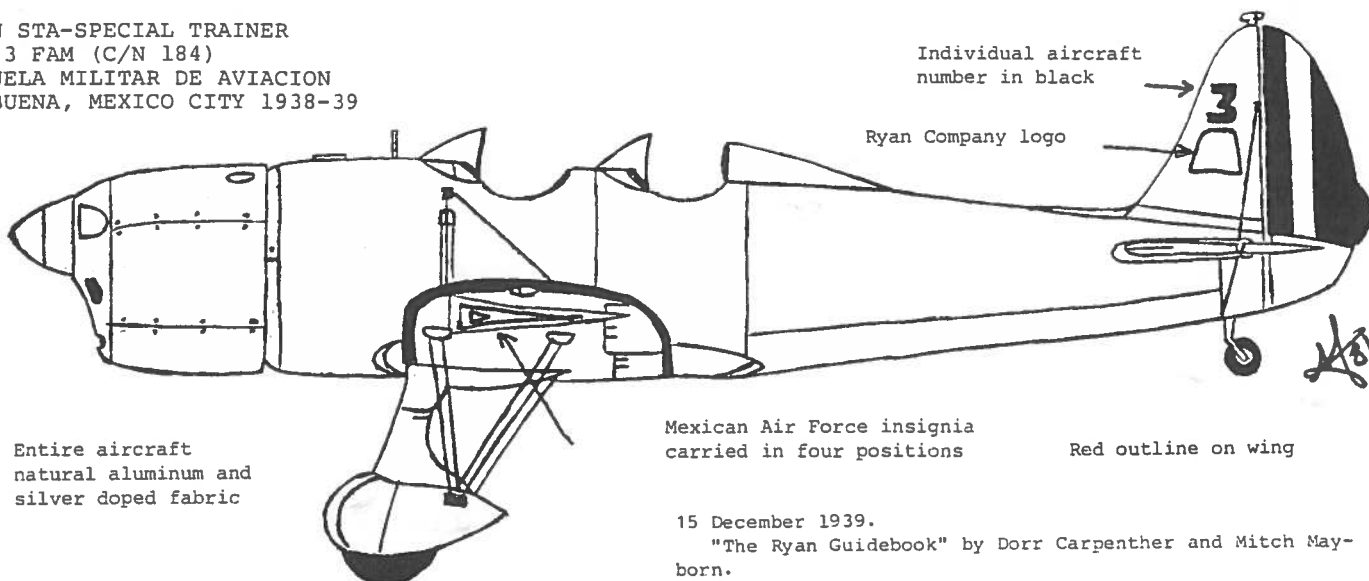
McNeal of Imperial Beach, California in 1958 and restored to flying condition. (7)

THE RYAN GUIDEBOOK mentions the following concerning the last remaining Mexican Ryan: "...except for a period of time she was registered and flying as N7828C, she is now registered and flying as NC17360, first in California, then Texas and now Illinois." The book lists the aircraft as still flying in 1975.

In 1978, the San Diego Aerospace Museum became interested in Ryan No. 3, which at that time was owned by Mr. J. Connolly of Texas. They were informed that the Ryan had been given to the Air Power Museum of Iowa, but that the aircraft had crashed at Midland, Texas, and the remains are being kept by the Air Power Museum. (8)

So ends the story of the six Ryan STM of the Mexican Air Force.

RYAN STA-SPECIAL TRAINER  
No. 3 FAM (C/N 184)  
ESCUELA MILITAR DE AVIACION  
BALBUENA, MEXICO CITY 1938-39



#### Footnotes:

1. Copy of Records and Letters provided by Mr. William Wagner of Ryan Teledyne, San Diego.

2. Taped interview with General de Div. P.A. Hector Berthier Aquiluz, Chief of the Mexican Air Force, at the National Defence Secretary Mexico City, 11 March 1980.

3. Taped interview with Capt Gustavo Melgarejo Velasco at his home in Mexico City, 5 March 1980. (Interview conducted by Mr. Carlos L. Vazquez). Letters from Gustavo Melgarejo Velasco to author dated 6 Dec. 1979 and 28 Feb. 1980.

4. Later Capt 2/o P.A. Pablo Luis Rivas Martinez. Became second in command of Fighter Squadron 201 of the Mexican Expeditionary Air Force, that fought in the Philippines from June to August 1945. He was declared missing on 19 July 1945 after he and his wingman flew into a storm while ferrying a P-47D from Biak, New Guinea, to Porac Field in the Philippines. His wingman was later found and rescued.

5. Cadet Suarez y Suarez graduated from flight training in December 1938 with the rank of Tte P.A. and was assigned to the 2/o Air Regiment at the age of 25. He reached the rank of General in the Air Force.

6. The Fuerza Aerea Mexicana Order of Battle for 21 August 1943 lists five Ryan STA, but with the footnote "four unserviceable".

7. Ryan No. 3 was surplused by the Mexican Air Force 4 June 1948 and registered N7828C on 16 May 1960.

8. Information received from Col Owen F. Clark USAF (ret), former Director of the San Diego Aerospace Museum.

#### Bibliography

"Breve Historia de la Aviacion en Mexico" by Ing. Jose Villala G., Mexico City 1971.

"Historia Grafica de la Aviacion Mexicana" Direccion General de Aeronautica Civil, Secretaria de Comunicaciones y Transportes, Mexico 1960.

"Kulkulca" Mexican Air Force Magazine, Vol. 1, No. 2,

15 December 1939.

"The Ryan Guidebook" by Dorr Carpenter and Mitch Mayborn.

"The Consolidator" October 1936.

#### Acknowledgements:

The author would like to thank the following people: Gen Hector Berthier Aquiluz, Capt Gustavo Melgarejo Velasco, Mr. Carlos L. Vazquez, William Wagner, Col. Owen Clark USAF(Ret), and MSG Daniel Hagedorn (USA).

#### Photo Captions:

a) b) Ryan STM trainers at Lindbergh Field, San Diego, before delivery to the Mexican Air Force in December 1937.

c) Mexican STM being test flown by Ryan test pilot Paul "Pablo" Wilcox in November 1937.

d) Mexican Air Force personnel at the Ryan plant. Left to right: Capt.P.A. Guadalupe Vergara, flight instructor; Lt.Col.P.A. Luis Farell Cubillas, Commanding Officer, Military Aviation School; Mr. T. Claude Ryan; Capt.P.A. Santiago Vasquez who was sent to San Diego to oversee shipment of aircraft to Mexico; Capt.P.A. Mariano Munoz, instructor, Military Aviation School.

e) Ryan STM #4 flown by Capt. Vergara over the legendary Popocatepetl; photo taken by Adrian Devars from a Ryan flown by Capt.P.A. Mariano Munoz.

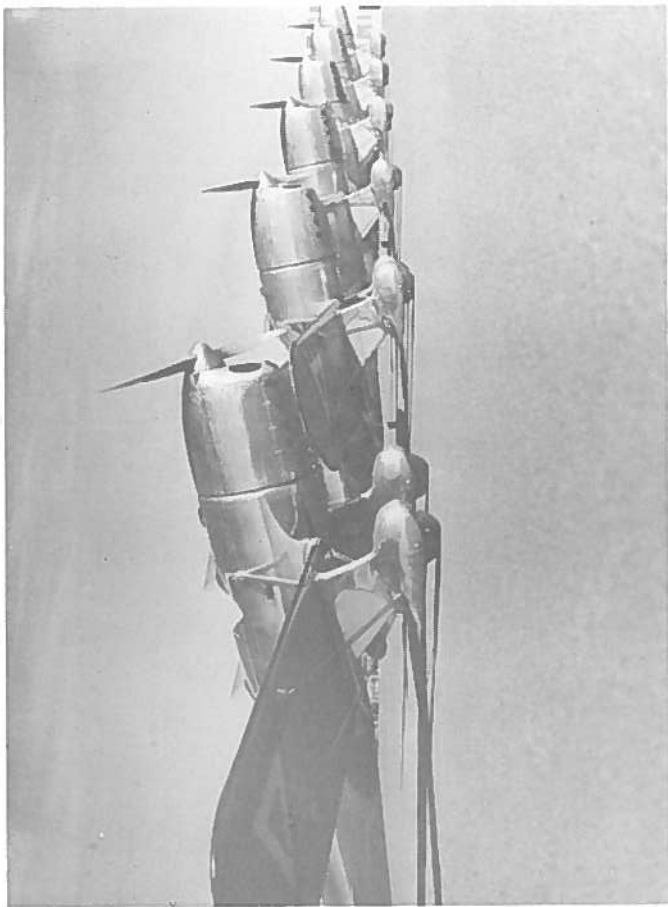
f) Cadet P.A. Gustavo Melgarejo Velasco, a graduate of the Mexican Naval Academy, with a STM at Balbuena Airfield, Mexico City, 1938.

g) Ryan STM #6 of the Military Aviation School, possibly at Balbuena Airfield, 1938. No. 6 (s/n 187) was the first Mexican STM to be lost when it crashed in 1938 with Tte. P.A. Altamirano Espondola at the controls.

h) Ryan STM #3, the last remaining STM, on display in the Hacienda del Espiritu Santo (1941) at the Military Aviation School, Zapopan Jalisco.

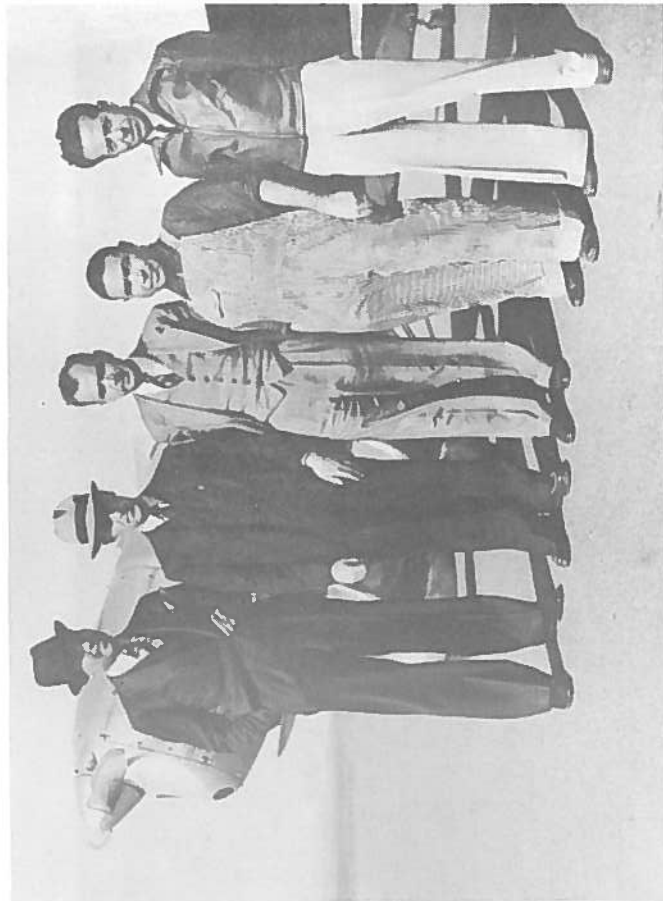
(Photos a-e Ryan Teledyne via William Wagner; f-h Capt. Melgarejo Velasco via Santiago Flores Ruiz.)

Santiago A. Flores (SAFCH #588), c/o San Diego Aerospace Museum, 2001 Pan American Plaza, Balboa Park, San Diego, CA 92101



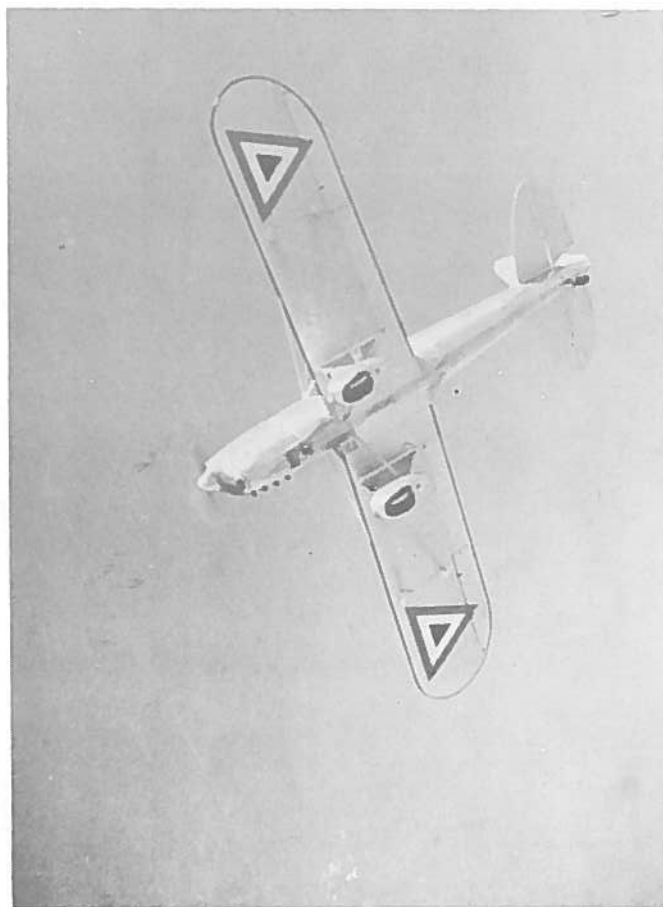
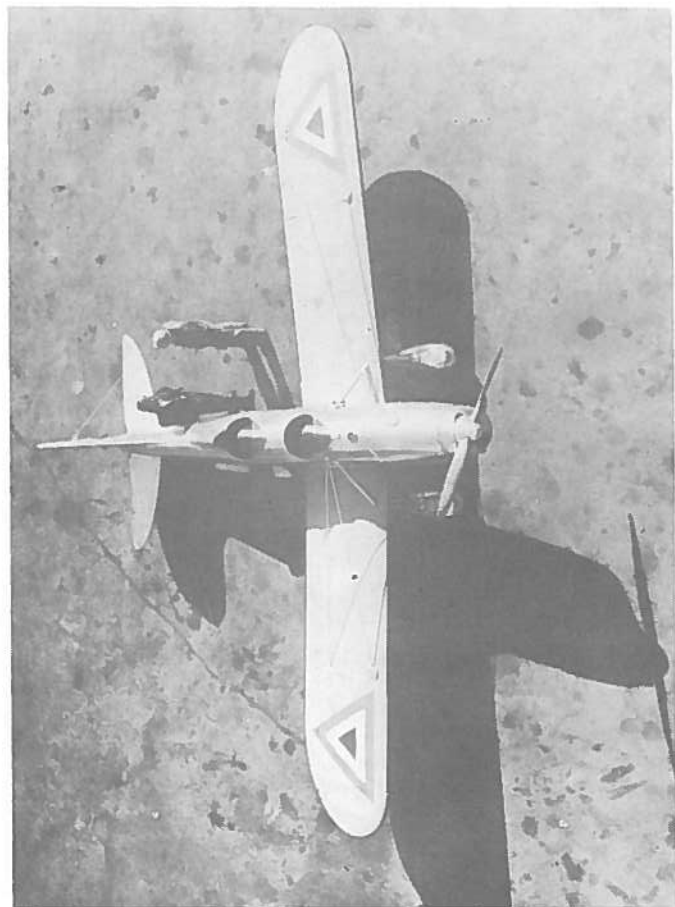
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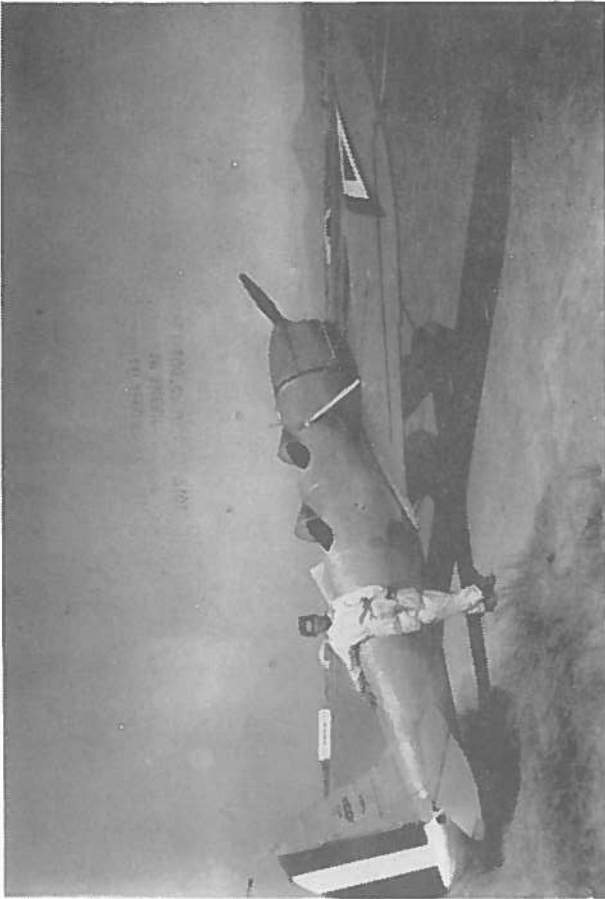
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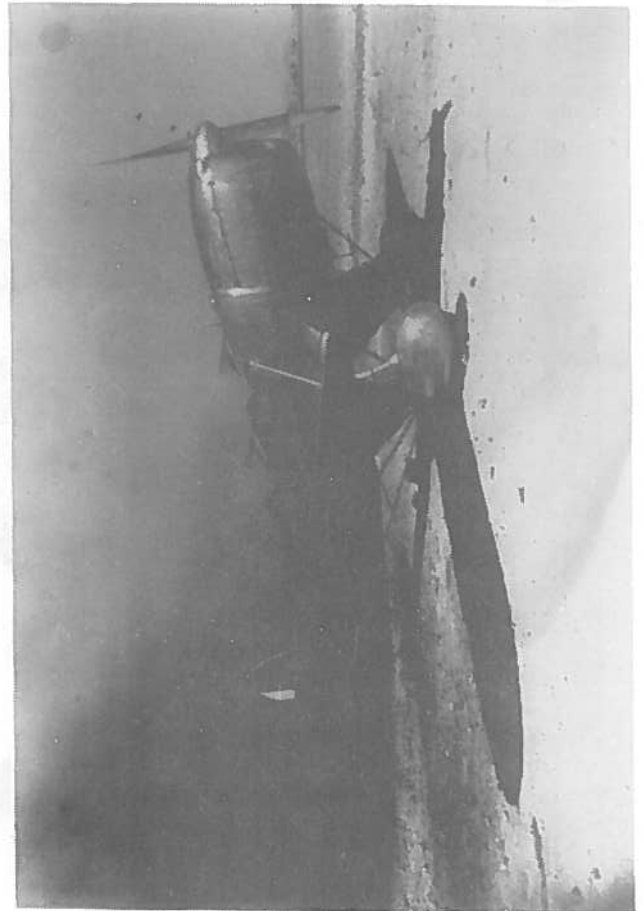




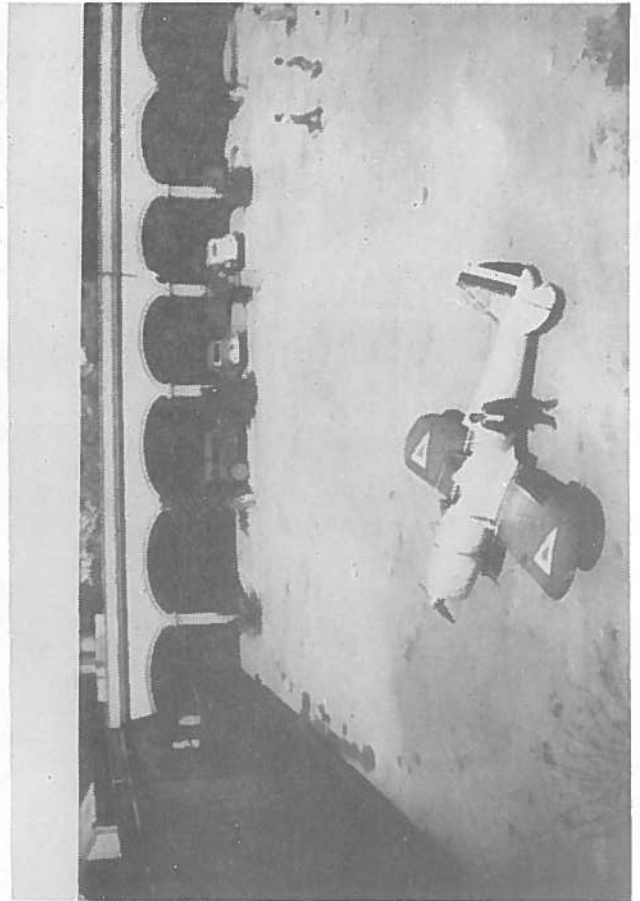
6



f



9



h



# The Trojans in Mexico

In 1958, the Mexican Air Force began looking for a light attack aircraft to replace their aging North American AT-6. Several different types were studied before it was decided to purchase another North American Aviation product, the T-28A Trojan. The first eight aircraft of this type were available to perform before the President in September 1958.

The first Mexican squadron to receive the T-28 was the famous 201 Squadron (see SAFO #6 & 16) which exchanged its P-47D for Trojans late in 1958. The next squadron to receive the T-28A was 200 Squadron which received its Trojans on 6 January 1958. However, 200 Squadron did not operate the T-28 very long before they were passed on to 202 Squadron in April 1959 to make room for de Havilland Vampire 3s. The Trojans did not stay long with 202 Squadron either; they were passed on to 205 Squadron in June 1962 when 202 Squadron re-equipped with Lockheed T-33As.

Mexico received more Trojans in 1964, and these were distributed to Escuadron Aereo de Pelea 201, 203, 204, 205, 206, and 207. A total of 87 T-28As were operated by the Mexican Air Force with serials ranging from '903' to '990'. The Trojans served with these combat units until the end in 1980 when they were replaced by the Pilatus PC-7.

In Mexican service, the Trojans carried three different color schemes.

(1) At first, the aircraft were overall natural aluminum. Squadron identification colors were painted on the vertical fin, and color bands were carried on the fuselage and wings. The propeller was black with yellow tips and the antiglare panel was black. The serial number, e.g., 'T-28-920', was carried on the vertical fin; in black on light squadron colors and in white on dark squadron colors. The serial, or part of it, was sometimes repeated on the forward fuselage in black, e.g., '916', '40', and '4'.

(2) A new color scheme was adopted in 1964. The overall color was changed to light grey with black exhaust panels. The fin and bands remained as before, and the wing tips were painted orange. The last two digits of

the serial were frequently, but not always, painted on the rear of the fuselage in large, black numbers, e.g., '61' and '31'. Most aircraft carried the squadron emblems either below the cockpit, on the engine cowlings, or on the vertical fin.

(3) In 1970, some squadrons adopted an overall dark grey color scheme.

Roberto Vargas Cruz (SAFCH #386), Apartado Postal 21-921 Coyoacan Mexico 04000, D.F. MEXICO

(Editor's note: The SAFCH files contain the following photos, drawings, and information on Mexican T-28s: a) Flying Review International, May '64; color drawings of 'T-28-920' with yellow fin and bands. This differs from Roberto's drawing which shows '920' with green fin and yellow bands. b) Flying Review International, Jan. '66; 'T-28-920' b&w photo. c) Air Pictorial, Feb. '65, b&w photo of a line-up of 201 Squadron T-28s at Cozumel AFB, Quintana Roo; serials visible on the fuselage are '918' and '946'. d) Air International, Nov. '81, has a good article on the Mexican Air Force which includes a color photo of '924' and '975' of 3° at El Cipres, Ensenada. These aircraft have unit badges in both fin and engine cowlings, but no fuselage or wing bands. Also included is a b&w photo of '924' and the following information: "The airframes of the Escuadrones Aereo de Pelea are overhauled at Santa Lucia by the 4° Escalon and their Wright R-1300 engines by the 3° Escalon de Mantenimiento at the old airport at Tijuana, Baja California (Norte). Maintaining the T-28As in airworthy condition has become an increasing problem with the passage of time as they have now seen a score or so of years of Mexican service and already had quite a lot of hours on them when acquired from the USAF. As spare parts become scarcer, cannibalisation has become increasingly necessary, and it may be assumed that, as the T-28As are withdrawn from the Escuadrones only a small proportion with a reasonable remaining fatigue life will be retained for tactical training" with the Escuadron Mixto de Entrenamiento Tactico.)

-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-

(Continued from page 102)

it done, nor issues #7 and #8 for which quite a bit of work has been done. Juan advised me to attempt to recover the remainder of my subscription.

"Good news is the 're-birth' of AIR SONIC, another good aviation magazine from Barcelona. AIR SONIC's last previous issue was #8 of July 1981. They had difficulties acquiring enough advertisers and had to suspend publication until issue #9, May 1983.

"Issue #9 has little to satisfy a Spanish Civil War 'freak' as myself, but SAFO readers should find the articles of interest. (Editor's note: see review that follows this letter.) AIR SONIC is published by RADAR Ediciones, Balmas 86 - Entlo. 2a, Barcelona 8, SPAIN. Back issues of all eight issues are available for 800 Sp. pasetas (\$5.60 as of 11 June '83) plus postage."

Bill Brown (SAFCH #525), 1719 Minnie St., Port Huron, MI 48060

An old friend from Spain, AIR SONIC, has recommenced publication after an 18-month hiatus, and it is my pleasure to report that it is as good as ever with lots of photos and lots of color all excellently reproduced. The May 1983 issue (#9) is at hand and a review of its contents will serve to highlight the high quality of this publication: "El Centro de la Aviacion Ligera del Ejercito Italiano" 3 pages including 5 photos (L-21, A-109A, AB-205, AB-47G3, SM-1019E). La Cruz de San Andres, sus Aviones y Emblemas (V)" 6 pages including 21 photos (HA-100E, HA-100F, HA-200R, HA-200A, HA-200D, HA-200E,

HA-220, NiD-52C, HA-1109J, HA-1109K, HA-1110K, HA-1112K, HA-1109M, HA-1112M, HS-42A, HS-42B, HS-42D, HS-43B, HS-132L, & Pazo P-IV) and 12 insignia in color. "Moscas" en Tablada" 4 pages including 7 photos (U.12-11, L.9, OH-23C, H-19D-4, C-212E1, C-352L & Do-28A-1). "Aviacion Naval Argentina. Ano 1937 (II)" 4 pages including 7 photos (Southampton III, Grumman G-20, Fairchild 45, Martin 139WAN, Fokker Super Universal, Keystone K-42A & Curtiss 16E) and aircraft list. "La U.Hel.II de las Farnet" 5 pages including 11 photos Kiowa, Alouette III & Huey). Side-view drawing of Indian MiG-21FL and Egyptian MiG-17PF. All photos are caption in both Spanish and English.

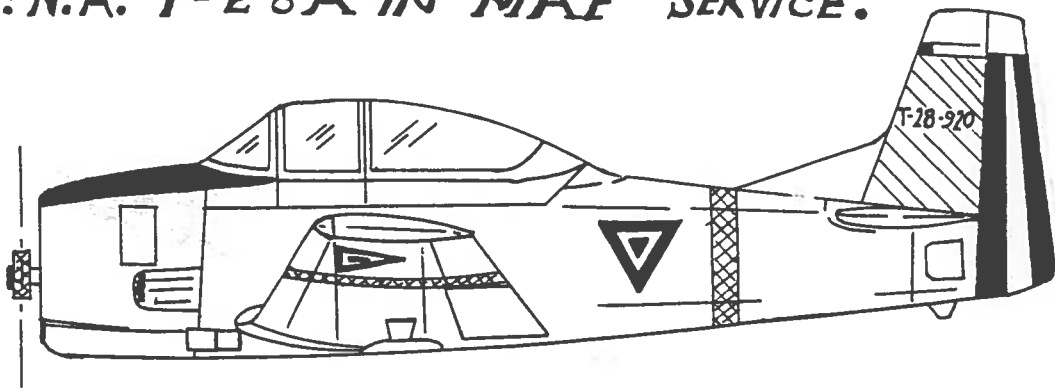
AIR SONIC is a real "class" magazine and it is highly recommended. An annual subscription (12 issues) costs 3.000 Ptas. and can be obtained from AIR SONIC, Apartado 1692, Barcelona, SPAIN.

"I was watching a videotape of the 1962 science-fiction movie "First Spaceship on Venus", which is listed as being made in Germany. Near the beginning of the movie, two astronauts land at a rocket base (actually it looks like an airport), and as they taxi up to the camera you can plainly see they are in a MiG-15UTI!

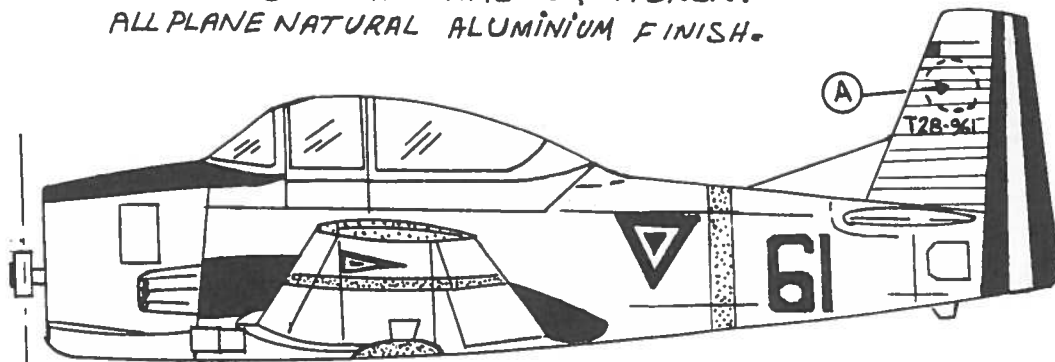
"The aircraft is overall bare metal with a black '50' on the nose and East German insignia on the tail. The port cannon is visible, the headrests are black (it's a color movie), and no stenciling is visible on the aircraft."

Bill Retoff (SAFCH #596), RR 2 Box 6, Minonk, IL 61760

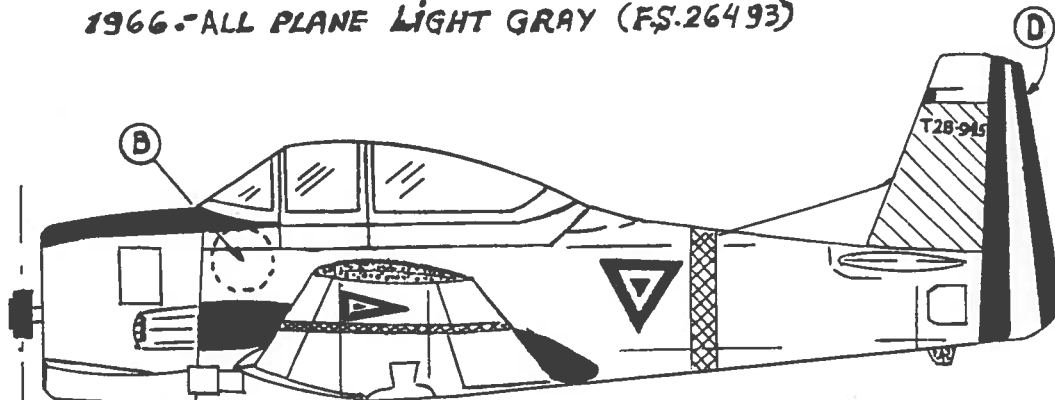
# I.N.A. T-28A IN MAF SERVICE.



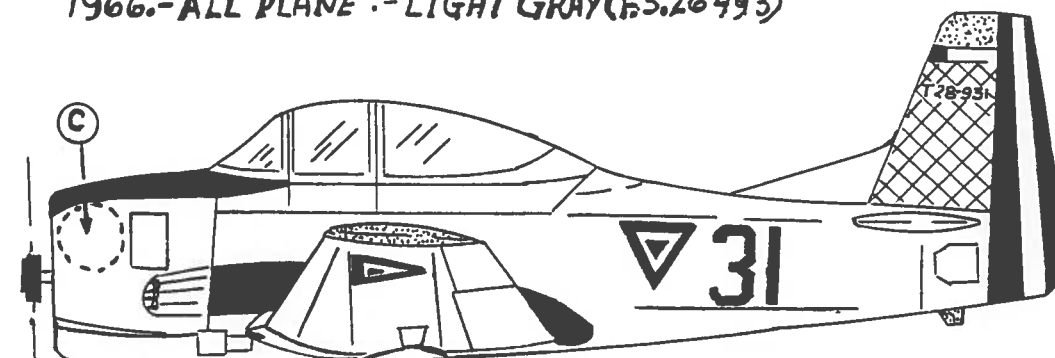
1.- T-28A -920, -(SERIAL 17708).- SQUADRON 201-COZUMEL, Q.ROO  
SINCE 1959 IN SAME SQUADRON.  
ALL PLANE NATURAL ALUMINIUM FINISH.



2.-T-28A -961 (SERIAL 49-1678).-SQUADRON 207.-IXTEPEC-OAXACA  
1966.-ALL PLANE LIGHT GRAY (F.S.26493)



3.-T-28A-945 (SERIAL 51-7701) SQUADRON 201-COZUMEL, Q.ROO  
1966.-ALL PLANE - LIGHT GRAY(F.S.26493)



4.-T-28A-931 (SERIAL 17805) SQUADRON 205-MERIDA, YUCATAN.  
1968.-ALL PLANE LIGHT GRAY(F.S.26373)

SAFCH 386 - R. VARGAS C. III-B

## II.-N.A. T-28A IN MAF SERVICE.

### COLORS:

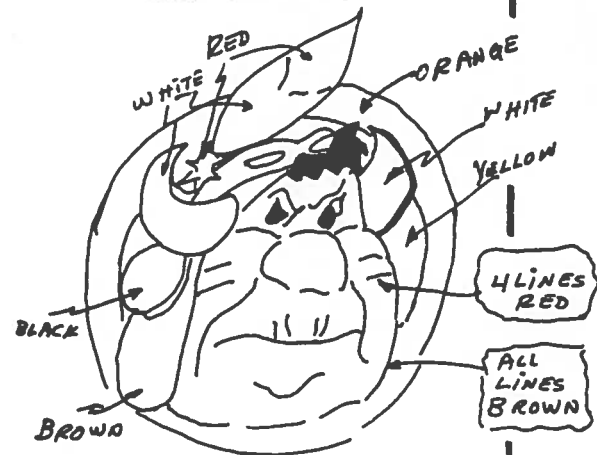
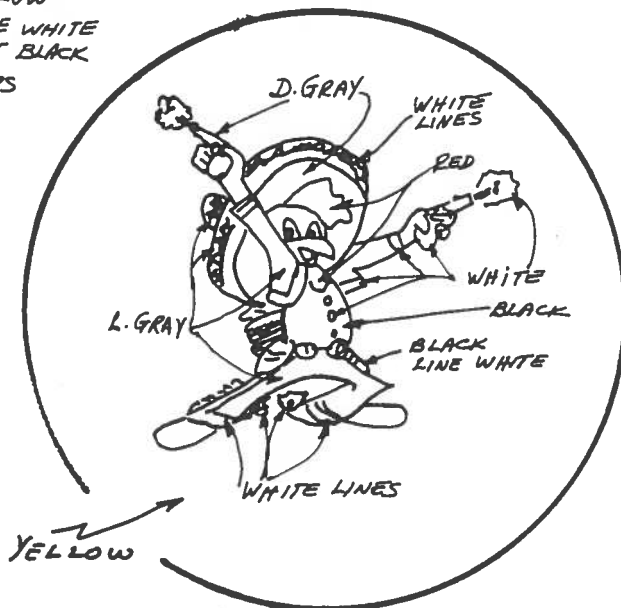
FACE, HANDS AND POOTS - ROSE COL.

PEAK - YELLOW

EYES - CIRCLE WHITE  
POINT BLACK

### TAIL FEATHERS

WHITE  
L. GRAY  
BLACK  
RED  
YELLOW



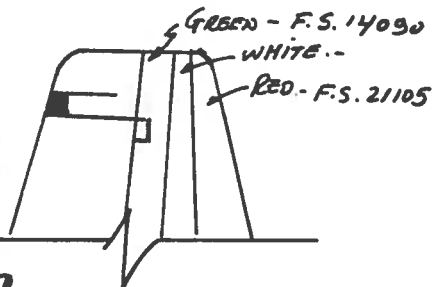
[A] - "INDIAN CHIEF"  
SQ. 207 - IXTPEC, OAX.  
1966 T-28A-961

FACE: ROSE COL.

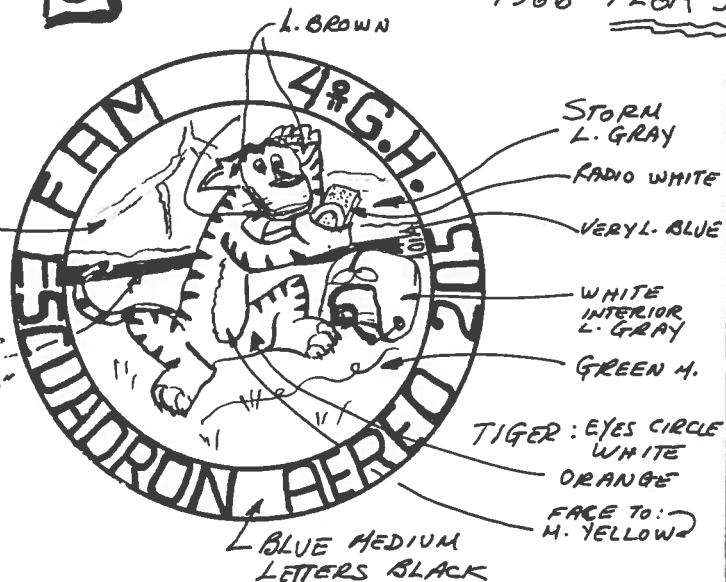
EYES: CIRCLE WHITE  
POINT BLACK

CAP: BROWN

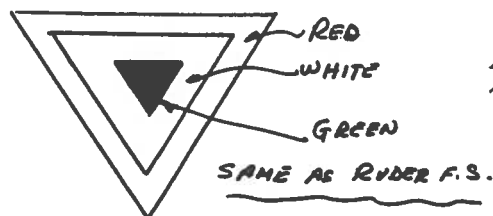
[B] - "PANCHO PISTOLAS" SQ. 201 - COZUMEL, Q. ROO.  
1963 - T 28A-945



[C] "TIGER" SQ 205, MERIDA, YUC.  
1966 - T28A-931



[D] - RUDE (1,2,3,4) -



MEXICAN A.F.

4 POSITIONS WINGS  
2 POSITIONS FVS

GREEN



F.S. 34255 (T-28-930)  
F.S. 24097 (T-28-945)

ROSE COLORED



F.S. 21668

YELLOW



F.S. 23538

ORANGE



F.S. 22510

SAFCH 386 R. VARGAS C III-81

MILITAIR 1982 by John Andrade. 636+ pages (15 cm by 22 cm), hardbound; Aviation Press Publications 1982

The Rwandese AF was formed in 1972 from the Belgian-trained Army (Garde Nationale), and still receives assistance from Belgium. It is mainly a transport force, although three Potez CM.170 Magisters were obtained from France in 1975 as the nucleus of a jet element. Its main air base is at Kigali International Airport.

There are two serialling systems. Grade National aircraft are registered in the 9XR-G block, whilst purely military types have distinctive two-digit/letter/two-digit serial numbers.

|        |                          |      |        |
|--------|--------------------------|------|--------|
| 9XR-G  | Douglas C-47             | c/n  | ex     |
| 9XR-GR | Dornier Do 27Q-4         | 2031 | D-EMEH |
| 9XR-GT | Sud SE.3160 Alouette III | 1434 |        |
| 9XR-GU | Sud SE.3160 Alouette III | 1440 |        |
| 9XR-GV | BN.2A-6 Islander         | 751  | G-BCYT |
| 9XR-GW | BN.2A-6 Islander         | 811  | G-BEGK |

#### Macchi AM.3C

Three aircraft, serialised 40V01 to 40V03

#### Sud SA.316B Alouette III

Five helicopters, three of which have been identified;

|                |           |                |
|----------------|-----------|----------------|
| 10K01 c/n 1937 | 10K03 c/n | 10K05 c/n 2331 |
| 10K02          | 10K04     | 2324           |

The Rwandese Government operates a presidential aircraft:

Sud Caravelle III 9XR-CH c/n 208 ex F-BNKB

The above is the complete entry for Rwanda except for a map of the country locating all four main air bases and a sketch of the air force insignia. This example was chosen because, while it is short, it does illustrate the type of information given for all countries. Of particular interest is the degree of coverage which the author explains "Each entry comprises a general introduction and a current report on the respective country's Air Force, in addition to the aviation elements of the Army and Navy (if they exist). Aircraft operated by Government agencies in civil markings are also listed where known, as also are those on the charge of paramilitary forces." The authors ability to meet this goal for every country, no matter how large its military, is an outstanding accomplishment.

The main portion of the book (350 pages) consists of a country-by-country description of military aviation in 168 countries. The amount of coverage varies from a few lines (e.g., Kiribati is covered in 11 lines) to many pages for the "great" powers (e.g., the USA is covered in 80 pages, including "order of battle", and a list of individual aircraft operated by the Air Force, Army, Navy, Marines, Coast Guard, and NASA). This text is supplemented by 36 pages each containing 3 black & white photos, 32 pages each containing 3 color photos, 4 pages containing 140 air-force insignia in color, and 4 pages of maps locating each country and displaying its relative size. The photos, printed on high quality, glossy paper, are outstanding. The color photos are particularly good, so much so that the few that fail to come up to the standard of color fidelity are conspicuous in their failure.

The best thing about the photos, at least for the small-air-force enthusiast, is that the selection emphasizes the small air forces. So much so that only 3 b&w and 4 color photos are devoted to the USA (with similar coverage for the other "great" powers) while little Lesotho is represented by 2 b&w photos (Do-27 '7P-AAX' and Skyvan 'SC7-PMU2') and Nepal by one color photo (Skyvan 'RA-N14'). Color photos of particular interest to this reviewer were: Nigerian Alpha Jet 'NAF 451', Singapore red & white Strikemaster '301' and Bell 212 '210', Surinam Islander 'SAF 001', Trinidad & Tobago orange & white Sikorsky S-76A '9Y-TGW', and UNO Aero Commander 690A 'UN-77'. In the b&w section, I was attracted to the Ar-

gentine Neptune '2-P-112', Congolese Nord 262 'TN-230', Mozambique Do-28D 'C9-ANV', Tanzania Cessna 310 'JW-402', and UAE Bo-105 'P-787'.

Of course, the author had to restrict his tabulations to the current inventory, but he adopts a very intelligent interpretation of "current": Each list is preceded by a qualifying statement such as "Known serial numbers, noted over a period of several years, include", "Examples of aircraft in recent use include", "Aircraft in recent service include", "Aircraft known to have been used include", etc.

Anyone who owns this book is going to give it a lot of use, if only to get the information onto his home computer, so it is a relief to report that the book is very firmly bound and is protected between sturdy, damage-resistant covers.

MILITAIR 1982 can be unreservedly recommended to anyone interested in current military aviation. Devotees of the small air forces will find this book invaluable and I sincerely believe that every SAFCH member should own one. And, for about \$15 it is an unbelievably good bargain. If you can afford to buy only one book this year, MILITAIR 1982 is it, even if you have to spend the grocery money to get it.

The author, John Andrade, deserves the highest praise for putting together a comprehensive, informative, and readable text. The publisher, SAFCH member Paul Wigley, deserves our heartfelt thanks for providing this information in a quality package at an extremely reasonable price. This is a combination hard to find in any field. Thanks John and Paul, may you sell a million of them.

MILITAIR 1982 may be obtained directly from the printer (Aviation Press LTD, 25 Temple Sheen Road, East Sheen, London SW14 7PY ENGLAND) or for £9.95 (post free to SAFCH members) from Graham Turner, 7 Eldorado Road, Cheltenham, Glos., GL50 2PJ ENGLAND.

I don't know if there will be a MILITAIR 1983, but if the photos are changed and the price remains the same, it will be worthwhile getting any future editions. I do know that the publisher is planning to do MILITAIR NEWS on a 6 issues per year schedule. It will have a minimum of 32 pages per issue and include news reports, articles of historical interest, air force profiles, colour schemes & markings, and production histories. Subscription will be \$15.00 per year and can be obtained from the publisher. The subscription and the book (if published yearly) would cost \$30; some magazine subscription alone cost more than that.

The final word belongs to the publisher: "HELP! If you can correct, or add to the information contained in MILITAIR 1982, please write to us."

(Review copy provided by the publisher, Paul Wigley.)

(Editor's note: The following additions and corrections to MILITAIR 1982 were provided by a pilot of the South Korean Navy. "The Korean Navy operates 23 S-2E (not SE-2A) and 12 Alouette III helicopters. The serials for the Trackers are: 9244, 9257, 9258, 9263, 9267, 9271, 9272, 9273, 9385, 9713, 9716, 9819, 9832, 9834, 9839, 9847, 9851, 9866, 9868, 9871, 9872, 9886, & 9891.")

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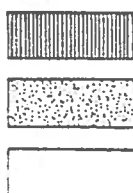
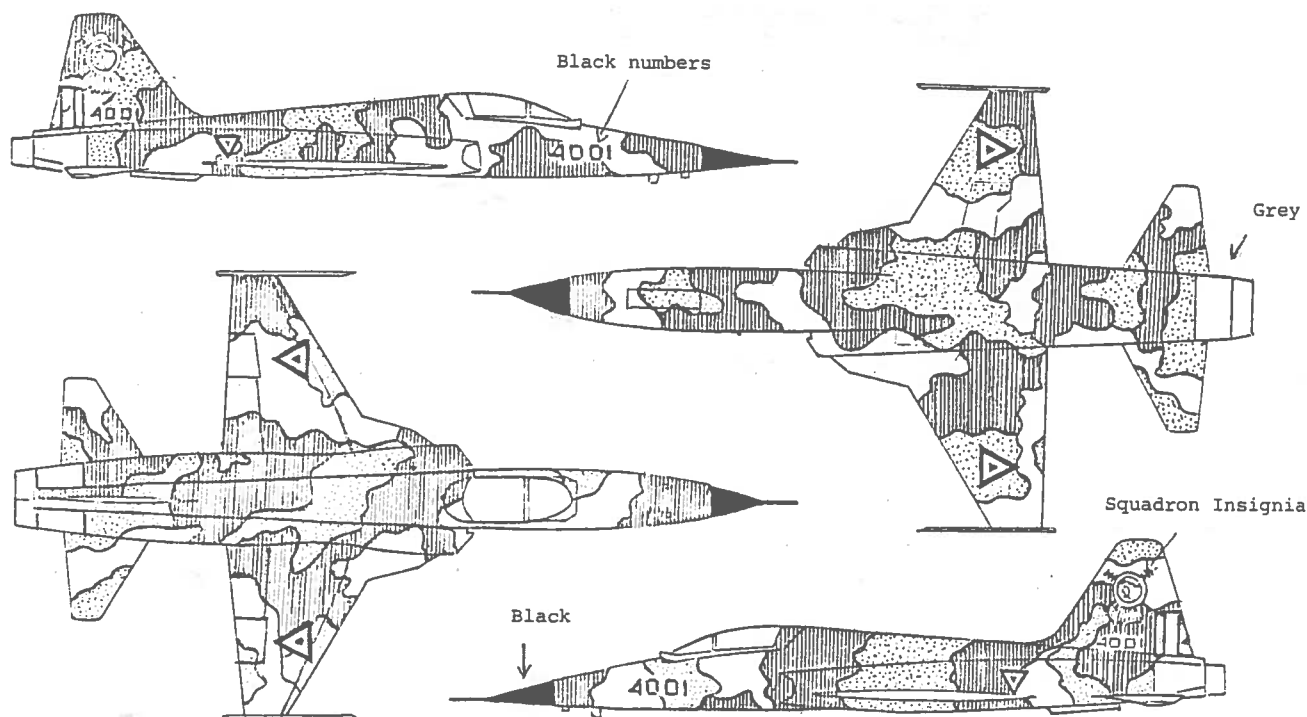
"I have a marked shortage of top quality slides from the smaller air forces, and I would like to increase my coverage in this area. Of special interest are South and Central American, Asia, Africa, and the Middle East. I have an assortment of local spares to trade."

Greg Meggs (SAFCH #642), 2 Hume St., Beaumaris, 3193 Victoria, AUSTRALIA

"Information wanted about the camouflage schemes for Kuwait A-4, Egypt Mirage 5, MiG-21 & F-5E, Iraq Mirage F.1, Jordan Hunter & Mirage F.1, Syria MiG-21, and Saudi Arabia F-15. I would also like to correspond with any readers interested in Middle East Air Forces."

Roland Finsterer (SAFCH #634), Udetstr. 8, 8400 Regensburg, WEST GERMANY

# Mexican F-5E & PC-7



VERDE 34079

VERDE 34102

BEIGE (TAN) 30219

NORTHROP F-5E No. 4001  
Escuadron de Defensa 401



Squadron insignia "Escuadron de Defensa 401"  
Mexican Air Force F-5E and F-5G

"I would like to provide the following information concerning some new a/c of the Mexican Air Force (Fuerza Aerea Mexicana).

"The FAM ordered 55 Pilatus PC-7 for the Escuela Militar de Aviacion (where they carry the designation EAP for 'Entrenador Avanzado Pilatus - Advanced Trainer Pilatus') and the Escuadras Aeras de Pelea (where they carry a 3-digit number, e.g., 509, 510, 511, 512, 522). The number 204 carried by the aircraft shown in SAFO #24 is, I believe, a construction number.

"The following Escuadras Aeras de Pelea operate the PC-7 (along with the surviving T-28As): 206 and 207 with 2/o Grupo Aereo, 203 and 204 with 3/o Grupo Aereo, and 201 and 205 with 4/o Grupo Aereo.

"The FAM lost its first PC-7, #524 of Escuadron Aereo de Pelea 204, 3° Grupo Aereo BAM#3 El Cipres Ensenada BCN, on 5 March 1981. This a/c crashed off the coast, taking two subtenientes to their watery graves.

"The FAM has ordered 10 F-5E and two F-5F. This order was announced by Gral. de Division DEM Felix Galvan Lopez, Secretary of National Defense, during a trip to the States in July 1982. Seven aircraft (6 F-5E and one F-5F) appeared during a Military Parade in Mexico City on 16 September 1982. Air International (Sept. '82) reports that all aircraft are to be delivered by the end of October.

"The F-5E's will equip Escuadron de Defensa 401, a new air-defense squadron that will be under the direct command of the Secretary of National Defense (Secretaria de

la Defensa Nacional) and will be based at Santa Lucia AFN No. 1. The a/c will be numbered as follows: F-5E 4001 to 4010; F-5F 4501 and 4502.

"Included is a drawing showing the camouflage and markings of a FAM F-5E. These drawings were done by Ing. Enrique Velasco of Mexico City, who has put out a 1/48-scale model (under Monogram license) of this aircraft."

Santiago A. Flores (SAFCH #588), c/o San Diego Aero-Space Museum, 2001 Pan American Plaza, Balboa Park, San Diego, CA 92101



CANADIAN AIRCRAFT SINCE 1909, by K.M. Molson and H.A. Taylor. 530 pages (14 cm by 22 cm), 450 photos, hard-bound. Canada's Wings 1982. CAN \$49.95.

If you think the title sounds familiar, wait until you see the book; its size, color, and layout are identical with the books from the well known series by Putnam. No wonder, for inside the dust jacket we read "published in co-operation with Putnam". For all intents and purposes, this book is a member of Putnam's excellent series, and no further recommendation is necessary for anyone familiar with these books.

The book begins with a 14-page summary of the history of Canadian aviation, both civil and military. The second section, 34 pages, describes in alphabetical order all the Canadian companies that have ever built aircraft, beginning with Avro Canada and ending with Ottawa Car & Aircraft. The next 407 pages describes the individual aircraft in chronological order under each manufacturer. The final 74 pages contain nine appendices.

One-hundred and twenty-seven different types of aircraft are covered. You will find familiar types of modern conception (Avro Canada CF-100 Canuck & CF-105 Arrow; Canadair CL-28 Argus, CL-41 Tutor, & CL-600 Challenger; de Havilland Canada DHC-1 through DHC-7; F-86 Sabre; T-33 Silverstar; CF-104 Starfighter; and CF-5 Freedom Fighter); as well as familiar types of WWII fame (Avro Anson, Lancaster, York, & Lincoln; Bristol Bolingbroke; Consolidated Canco; Curtiss Helldiver; de Havilland Tiger Moth & Mosquito; Fairchild Cornell; North American Harvard; Nooduryn Norseman; & Westland Lysander).

You will also find less familiar types such as the Avro Canada C-102 Jetliner & CL-84 VTOL aircraft; Fleet Fort & Canuck; Northrop Delta; Blackburn Shark; Canadian Car & Foundry FBD-1; Supermarine Stranraer; and Burnelli Loadmaster.

The pioneer period is well covered with the inclusion of conventional aircraft such as Bleriot-type mono-planes, Curtiss-type pushers, & Wright Model B biplanes; as well as some real wierd types as the Bell Cygnet & Oionus with tetrahedral wing cells, the Baddeck No. 1 & 2, and the Gibson Twinplane & Multi-plane. This spirit of innovation continues to the present time with aircraft produced under the names of Found, Saunders, etc.

WWI is well represented by the Avro 504, Curtiss JN-4 Jenny, DH-6, and the little-known Curtiss Canada.

The main excitement, at least for this reviewer, is in the sections covering that uniquely Canadian product, the "bush" aircraft. Here the mere mention of company names (Fairchild, Fleet, Bellanca, Buhl, etc.) conjure up visions of rugged little planes flying over endless, lake-dotted, forests. For sheer delight, one cannot find anything better than a photo of a seaplane resting on a glassy lake alongside a crude camp pitched on a rocky shore - all that is missing is the laugh of the loon. The imaginative modeler cannot look at such photos without visualizing the diorama he could build if a kit were available of, say, the Fairchild 71.

Beside the ubiquitous floatplane, the "bush" seaplane is well represented, e.g., Canadian Vickers Vedette, Varuna, Vista, & Vancouver; and the Boeing Thunderbird & Totem.

For those not acquainted with the Putnam format, suffice it to say that each aircraft type is covered by several pages of text and several well-chosen and well-reproduced photos. The text covers the development of the aircraft, its service in Canada, and the first owner if sold abroad. As an example, the Fairchild 71 is covered in 5+ pages including 6 photos.

Appendices include: "Summary of Canadian Aircraft Manufacturing to 31 March 1979", 7 pages listing every type of aircraft produced in Canada, the number built, years of construction, and the manufacturer. "Canadian Aircraft Production Record to 31 March 1979", 42 pages listing the registrations of ever individual aircraft made in Canada subject to the following limitation: "Registration subsequent to the original are recorded in many cases but this listing is not comprehensive. In particular, the subsequent registrations of a/c produced during the Sec-

ond World War are not recorded."

Besides its obvious value as a source of information on Canadian aviation, this book will be useful to the small-air-force enthusiast trying to trace the registrations carried by Canadian-built aircraft sold to the small air forces. For example, in the appendix we find the following entries: "Fairchild 82D c/n 66 to Argentine Navy as '151', later LV-FHZ" and "DHC-4 Caribou c/n 301-307 Zambian Air Force AF305, Kenya 205-6, Malaysian FM114-7".

As some indication of how many countries used Canadian-built aircraft, the appendix "National Civil Aircraft Identifications" list the civil registration prefixes for the 92 countries referred to in the text.

Only a few of the photos are of aircraft in other than Canadian markings, but these include some interesting subjects: Malaysian CL-41G-5 'FM126', French CL-215 'F-ZBAX', Thai CL-215, Venezuelan CL-215, Dutch NF-5B 'K4002', Nicaraguan CC&F Maple Leaf 'GN4', Chinese Mosquitoes '306' & 'T38', Malaysian Caribou 'FM1105', Zaire Buffalo '9T-CBA', New Foundland Fairchild 71 'VO-AFG', Argentine Fairchild 82D '151', Mexican Fairchild 82B 'CNI-1', Norwegian Cornell '191', Venezuelan Fleet 10D, Mexican Fleet 10 32D 'E-1', Dominican Republic Fleet 10F, Portuguese Fleet 10G '79' & 16D '113', Mexican Fleet 21M, Norwegian Norseman VI 'LN-PAD', West German Harvard 4 'AA+699', and Turkish Sabre 2 '19374'.

My only disappointment is that the book does not contain any 3-view drawings. This is doubly disappointing now that there is an enlarging Xerox in town. I guess that diorama of a Bellanca Pacemaker being salvaged after going through the ice on the Bousquet River in northern Quebec in December 1933 will have to remain a dream.

CANADIAN AIRCRAFT SINCE 1909 can be obtained from The Hanger Bookshelf, PO Box 1513, Belleville, Ontario, K8N 5J2 CANADA.

(Review copy supplied by the publisher, Canada's Wings).

421 SQUADRON HISTORY, 107 pages (26 cm by 22 cm), 220 photos, hardbound. Published in 1982 by 421 Tactical Fighter Squadron in co-operation with Canada's Wings. CAN \$21.95 from The Hanger Bookshelf, Box 1513, Belleville, Ontario, K8N 5J2, CANADA.

Books on squadron histories have a rather limited appeal to the ordinary aviation enthusiast. This is probably true because such books are intended for former squadron members and contain a preponderance of information and photos of people with only slight attention paid to aircraft. Their attraction for the general enthusiast is usually limited to the insights they provide into operational conditions.

This history of Canada's 421 Squadron is a definite cut above the usual squadron history with photos of personnel well balanced by carefully selected and well reproduced photos of aircraft. The text provides a vivid account of operations, and some interesting hints about political motivations behind the various changes in squadron equipment and duties.

The main body of the book is divided into three nearly equal parts:

Spitfires: 421 Squadron first achieved operational status on 16 May 1942 participating in the air defense of Great Britain. Action soon switch to the offensive with missions over German-occupied Europe with such nostalgic code names as "Rhubarb", "Ramrod", "Ranger", "Roadstead", "Circus", and "Rodeo". The squadron moved to Normandy on 16 June 1944; advanced through France, Belgium, and Holland; and ended the war in northern Germany. Disbandment followed on 23 July 1945.

Vampires and Sabres: With the heating up of the Cold War, 421 Squadron was reformed on 15 September, and in January 1951 it arrived back in England, becoming the first RCAF squadron sent overseas in time of peace. The squadron returned to Canada after less than a year, re-equipped with Canadair Sabres, and returned to Europe in

(Continued on page 116)

# Douglas Dauntless in Latin America

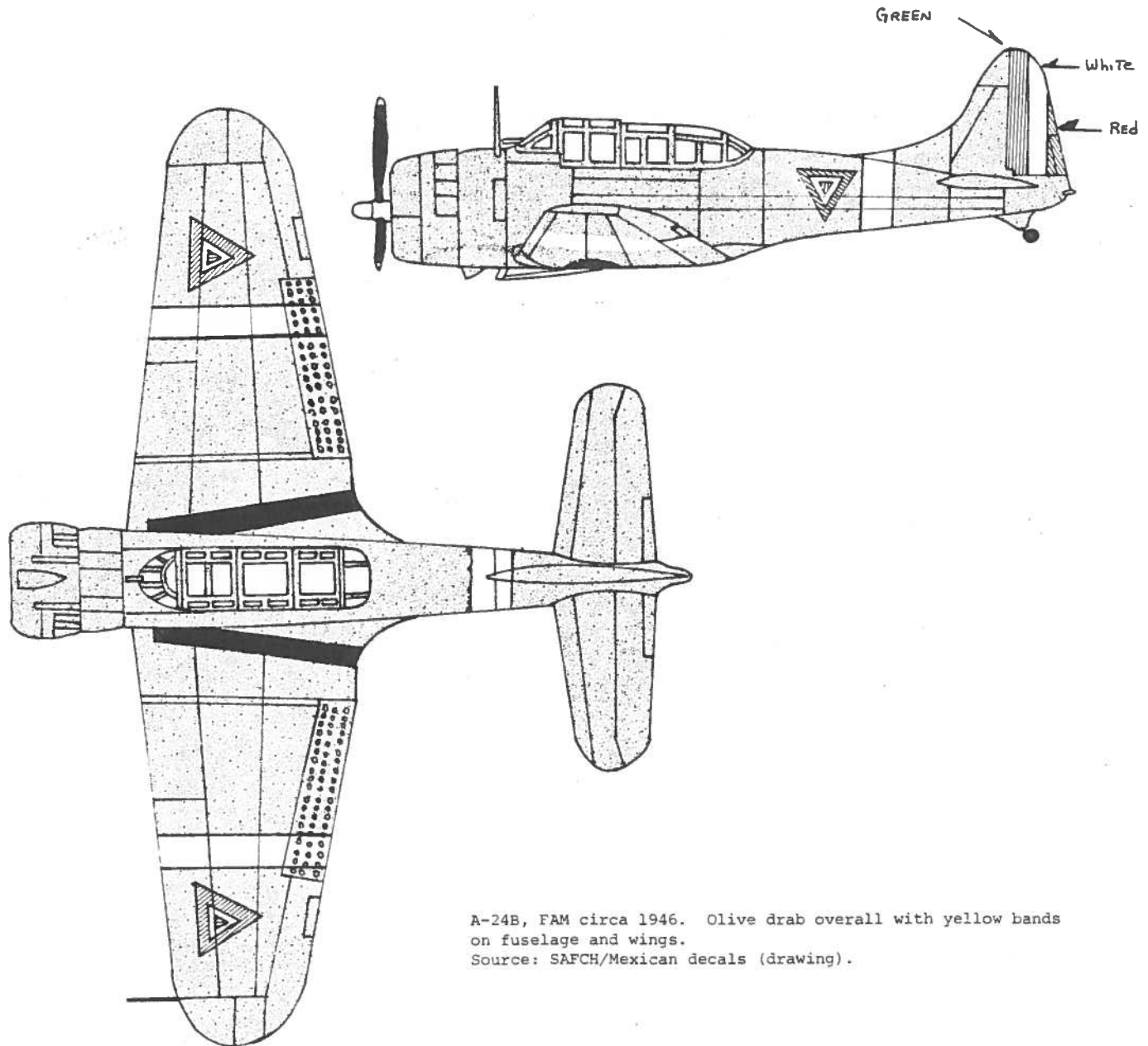
When one is asked about the SBD/A-24 and who operated this family of aircraft, the obvious immediately comes to mind: the US Navy and in a lesser extent the US Army Air Corps. When asked about foreign users, the usual answer is the French Navy, Free French Air Force, Royal New Zealand Air Force, and some will even remember the fact that a few Dauntlesses were evaluated by the Royal Navy. This makes for an apparent total of two domestic and four foreign users.

Not true, there are two other users of the A-24: one that is rarely mentioned in the histories of the type and another that is never mentioned. Mexico and Chile both received A-24B's under the Lend-Lease program during WWII.

## MEXICO

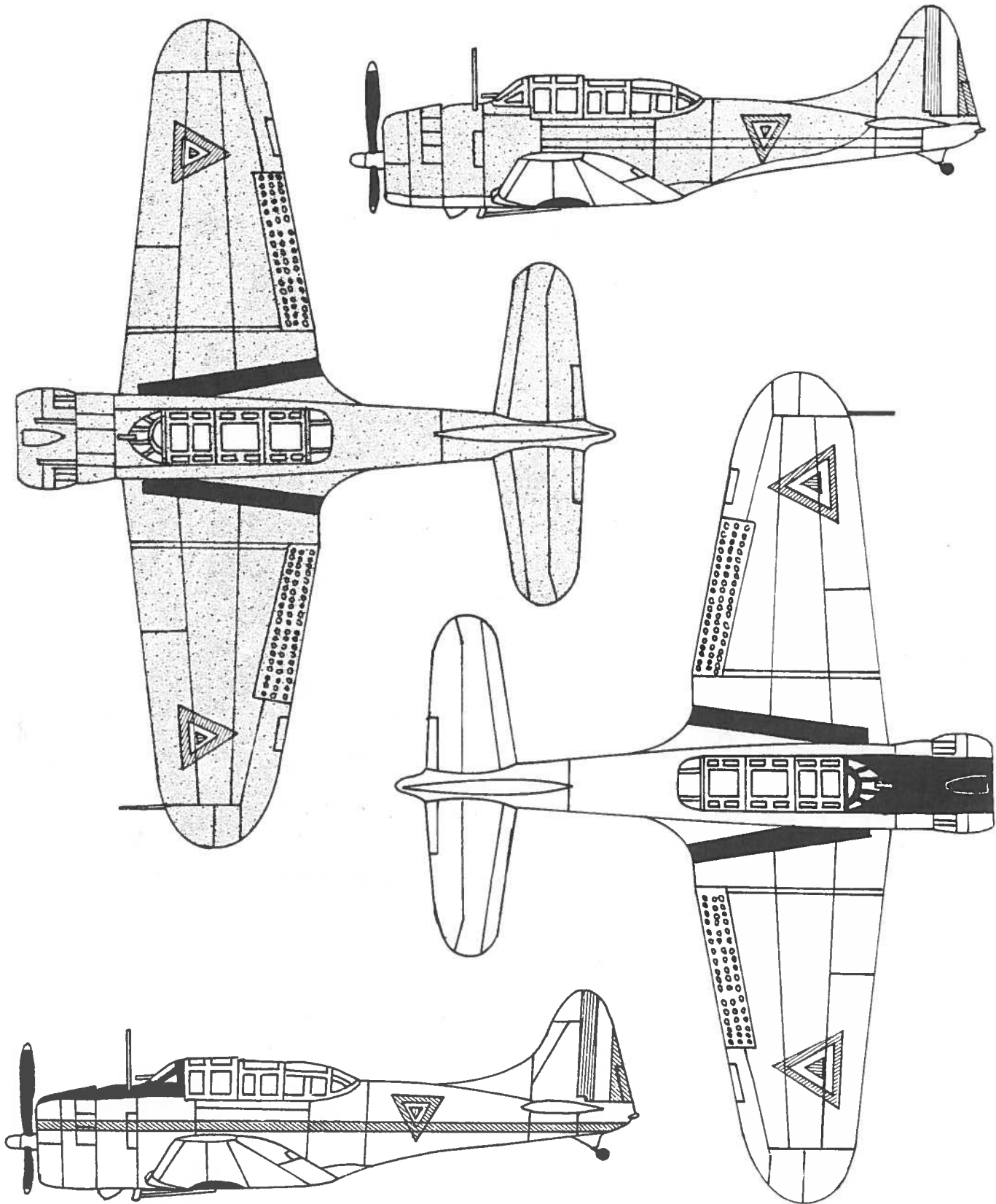
The Latin American country using the largest number of Dauntlesses was Mexico with the Fuerza Aerea Mexicana receiving a total of 30 aircraft.

On 1 April 1942, the US and Mexico signed an agreement on reciprocal use of bases, and on 29 May 1942, Mexico declared war on the Axis, opening the door for Lend-Lease supplied aircraft. Initial deliveries were in June of 1943. The first unit to operate the Dauntless was Escuadron Aereo de Pelea 200. Other units include EAP 202, 206, and 300. Mexican pilots received training in dive bombing techniques at NAS North Island, San Diego, and the aircraft were used for antisubmarine patrols in both the Pacific and the Gulf of Mexico.

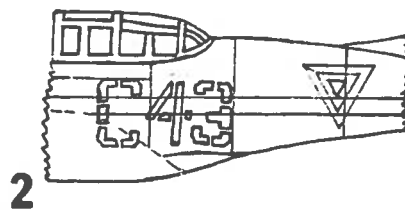
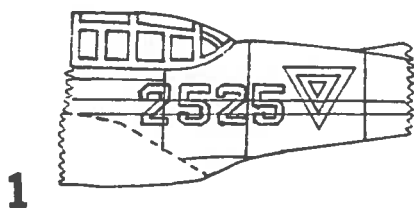


A-24B, FAM circa 1946. Olive drab overall with yellow bands on fuselage and wings.  
Source: SAFCH/Mexican decals (drawing).

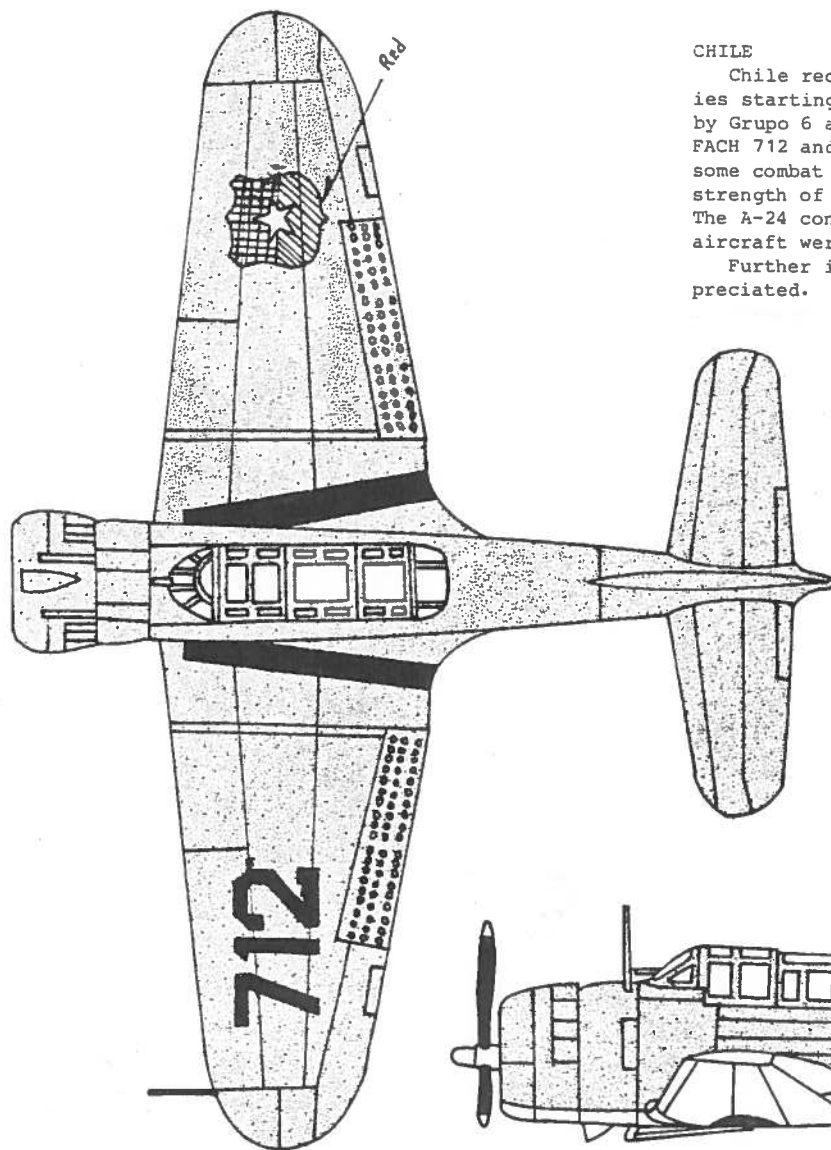
A-24B/SBD-5, FAM circa 1944. Olive drab over neutral grey.  
Source: Gary Kuhn (photo) and Ted Koppel (drawing).



A-24B, FAM date unknown. Bare metal overall, black anti-glare panel. Fuselage stripe is probably red; confirmation requested.  
Source: Air International (photo).



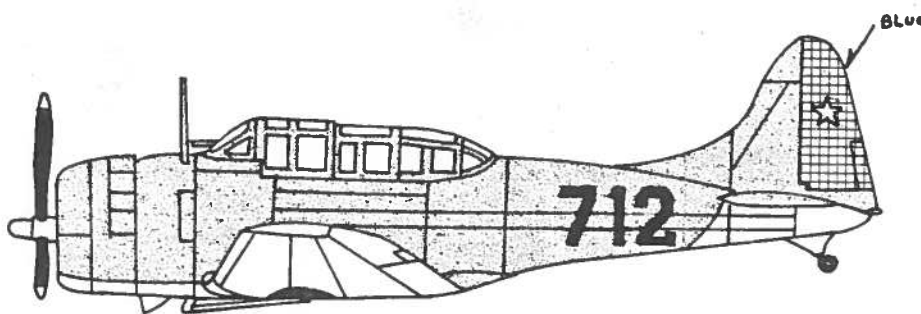
Scrap views showing the placement of serials on two FAM aircraft. #1 is for an olive drab overall aircraft. Source: Air International. #2 is for an olive drab over neutral grey aircraft. I have no photo confirmation of this type of marking. Source: Ted Koppel.



#### CHILE

Chile received 12 A-24B's under Lend-Lease; deliveries starting in July 1943. These aircraft were operated by Grupo 6 and Grupo 4. Serial numbers known include FACH 712 and 705. I have seen reports that, in 1944, some combat operations were undertaken by Grupo 4, with a strength of 9 A-24's. However, no details are available. The A-24 continued to serve until at least 1948, when 10 aircraft were reported still in service with the FACH.

Further information on the A-24 in Chile would be appreciated.



A-24B, FACH Grupo 6 circa 1944. Olive drab over neutral grey. Rudder is insignia blue with a white star. Number '712' is black outlined in white. Source: Mick Burton (drawing and photo).

Sources: The following furnished information utilized to prepare this report: Dan Hagedorn, Ismael Garcia, AIR INTERNATIONAL, Ted Koppel, Gary Kuhn, Mick Burton, G. von Rauch, SAFCH/Mexican Decals.

Nick Waters (SAFCH #2), 830 "A" Kirkbride Ave., Pearl City, HI 96782

(Continued from page 112)

October 1952. This time it was stationed at Grostenquin, France.

Starfighters: On 31 July 1963, 421 Squadron gave up its Sabres and began receiving Canadair Starfighters, operating first from Grostenquin and then from Baden-Soellingen, Germany. The CF-104 were used in the nuclear-strike role until 1971 when camouflage was applied to denote the change to the conventional-attack role.

Beside the excellent black & white photos which appear throughout the text, there is a section of full-page, color photos including one of each aircraft type operated by 421 Squadron: Spitfire IX LF of the Canadian Aeronautical Collection and carrying 421 Squadron markings; Vampire III ("photo taken four years after 421 had converted to Sabres and included for illustrative purposes"); Sabre '23421' over Grostenquin; CF-104 '104706' (overall green) flying past Hohenzollern Castle; and an attractively painted red-and-white CF-104 '104868' as flown to England in 1976 to commemorate the Squadron's service in England during WWII.

Four pages of appendices list the bases used by the squadron (with a map of the European locations), the commanding officers, the airmen who lost their lives while serving with the squadron, and the aerial victories scored during WWII. The latter appendix illustrates why squadron history fall short of what they could accomplish. The list of victories includes only the pilots name and the number and type of aircraft destroyed. With the information that was surely available, the date of each victory and the type of aircraft being flown by the victor could easily have been added making this tabulation much more valuable.

Hi Ziggy Zumba.

[Review copy supplied by the publisher. Squadron histories for two other Canadian squadrons will be available this summer. These new books cover 440 Squadron (Kittyhawks, Typhoons, Dakotas, & Twin Otters) and 417 Squadron (Hurricanes, Spitfires, Mustangs, CF-104s) and they have a format identical to the history reviewed above. The price for each is \$21.95. Also from Canada's Wings, comes VOYAGE INTO THE UNKNOWN by C.A. Morrison. This work recounts the search and recovery of the Soviet nuclear-powered satellite Cosmos 945 which crashed in Canada's Northwest Territories on 24 January 1978. This book contains 186 photos and 50 photos. It costs \$17.95.]

#### NEW BOOKS ON ITALIAN AIRCRAFT 1915-1939

During the past twenty years very few books covering the aircraft manufactured in Italy before WWII have been available in the USA. Since a number of very fine books on this subject have been published in Italy (some with English texts), the reason for this seems to be poor distribution rather than the lack of publication. In any case, these books have not sold well in the USA and, as a consequence, the authors and publishers have become discouraged.

However, in the past few months SAFCH member Roberto Gentilli has written two books which could reverse this trend: L'AVIAZIONE DA CACCIA ITALIANA 1918-1939, VOLUME II, TECNICA, STEMMI, ESPORTAZIONE (Italian Fighter Aircraft 1918-1939 Volume II, Technical, Insignia, and Exports) and AEROPLANI S.I.A.I. 1915-1935 (S.I.A.I. Aircraft 1915-1935).

L'AVIAZIONE DA CACCIA ITALIANA, VOLUME II covers the use, markings, and export of all Italian fighters of the 1918-1939 period. It has tremendous photographs of all aircraft covered and color plates of the insignia for most Italian fighter units. The photos are not the usual hackneyed factory pictures, but are mostly previously unpublished photos taken from personal albums and collections. The export section includes photos of Belgian Fiat CR-1, Lithuanian CR-20, Chinese Breda 27 and Fiat CR-32, Chilean Breda 65, and Paraguayan Caproni AP-1,

among others. The book is softbound with 144 pages on good-quality, 9 1/2 inch by 6 1/2 inch, semigloss paper. The color plates depict Squadriglia, Gruppo, and Stromo insignia in vivid colors; and the captions designate which aircraft types used each insignia. This book is available from the publisher: EDAI, PO Box 1550, 50100 Florence, ITALY for \$10.00 plus \$1.00 for surface mail or \$3.00 for airmail. A great book at the right price.

By the way, Roberto is also the author of Volume I of L'AVIAZIONE DA CACCIA ITALIANA 1918-1939, which is also a real gem. Again the photos are outstanding and all major aircraft types are illustrated in various schemes and markings by color plates. The format and price of this volume is similar to that of the first volume, and it is available from the same publisher.

The second new book by Roberto, AEROPLANI S.I.A.I. 1915-1935, covers the types S-8 through S-79. The great thing about this book, besides the excellent photos and three-view drawings, is that the text is in both Italian and English. The photos, all of good quality and most previously unpublished, are large (4 inches by 7 inches) and the three-view drawings are very detailed. The book has 128 12 inch by 8 inch pages printed on good-quality, glossy paper. This book is available from the same publisher for \$15.00 plus \$1.00 for surface mail or \$3.00 for airmail. Again, a great book at a right price.

Despite the fact that this hobby has been an all-consuming passion of mine for the past fifty years, it is always a source of amazement to see how little I really know about aircraft when such publications as these come to my attention.

Good publications about the aircraft of any country should be of interest to all aerophiles, and the authors and publishers of such books deserve our recognition and support.

Hal Ahrens (SAFCH #216), 3421 La Mesa Dr., Hayward, CA 94542

KPL MODELS 1/72-SCALE VACUFORM KITS: Koolhoven FK.58 \$3.95 and Fokker D.23 \$5.95.

Two recent kits from KPL MODELS depict aircraft of Dutch origin and serve to illustrate the ferment in design of fighter aircraft that existed just before the outbreak of WWII. The Koolhoven FK.58 represents the recently adopted preference for low-wing, monoplanes. The Fokker D.23 was also a monoplane, but with a difference. Combining two engines in a unique push-pull, twin-boom layout, the D.23 was probably the most compact twin-engine aircraft to appear during WWII.

The FK.58 saw limited operational service in WWII when a few were used by French and Polish pilots during the Battle for France. Divided into flights of two to four aircraft called "Chimney Flights" or "Patrouilles de Protection", they were supposed to provide point defense for industrial targets in northern France. The unique situation of the FK.58 was well summarized by one of its Polish pilots: "Dutch airframe, French engine, Belgian machine guns, and Polish pilot." Reference: "The Last of the Koolhovens", AIR INTERNATIONAL, April 1976.

The D.23 was one of the most unique fighters designed for WWII, but only a single prototype had been built and flown by the time the German invasion of the Netherlands put an end to further development. Reference: "Dutch Digression", AIR ENTHUSIAST INTERNATIONAL, February 1974.

Both these kits should be of interest to the modeler of aircraft of the small countries. Ken LaSala should be complimented for adding these subjects to his line of vacuform kits. Molded on sheets white plastic of acceptable thickness, these kits are rather basic. The FK.58 sheet consists of 13 parts; fuselage, wing, horizontal tail, and wheel halves, seat, propeller and canopy. The moldings check out to be accurate in scale and they appear to be accurate in shape. To save time, the modeler will probably want to replace the wheels, propeller, and seat with items from his/her spare-parts box. The canopy



is poorly molded and not very clear; it will have to be remolded by the modeler. The instruction sheet includes an excellent 3-view, tone drawing in 1/72 scale, an exploded view of the model, and the following note: "Only limited scribing in critical areas has been provided because of obtainable fidelity. Use the drawings, a flexible rule, and suitable scriber to add scribing as desired."

In this reviewer's opinion, surface detail is quite adequate in quantity, but lack the quality we have come to expect from today's vacuform kits. While a female mold is used with the detailing included as raised lines on the mold, the engraved lines on the kit are weak and uneven and will need careful rescribing. One potential problem with the kit is that there are several areas around the fuselage halves where the plastic has not been drawn completely down to the base plate. These will leave holes when the parts are removed and sanded down. It should be easy to fill and rescribe these areas, but it will be a nuisance.

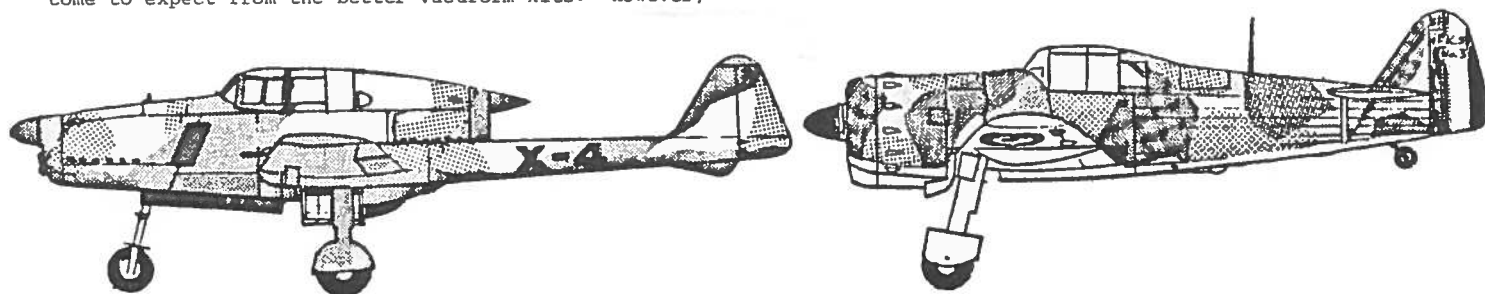
The same comments as above apply to the kit of the D.23 except that there are more parts (18) and no propellers are included. The modeler will have to do his own research to determine the direction of rotation of these propellers before going to his spare box.

These kits show improvement over the earlier KPL releases, but they still far short of the quality we have come to expect from the better vacuform kits. However,

the choice of subjects remains as exciting as any (and better than most), and the modeler experience in building vacuform models or even the modeler not afraid to do a little scratch work and rescribing, should give these kits a try. Few of these subjects will ever see the light of day as enjection-molded kits, and starting with a vacuform kit was a lot easier (and cheaper) than starting with a set of plans to some odd scale and a hunk of balsa wood.

Other kits currently available from KPL MODELS are: Caproni Vizzola F.6M \$3.95, Campini Caproni N.1 \$4.95, PZL P.50 \$3.95, Breda 88 \$4.95, Polikarpov I-17 \$3.95, Lavochkin La-9 \$3.95, IMAM Ro.57 \$3.95, Lavochkin La-11 \$3.95, Arsenal VG.33 \$3.95, Yak-4 \$4.95, Caproni Vizzola F.5 \$3.95, Myrsky II \$3.95, FFVS J.22 \$3.95, PZL P.37 \$6.95, Fiat Cansa FC.20 \$6.95, Il-4 (DB-3) \$6.95, Cant Z.1018 \$7.95, SAI-403 \$3.95, SAI-207 \$3.95, Ki-102 \$5.95, MiG-5 \$3.95, Ki-83 \$5.95, MiG-7 \$3.95, Koolhoven FK.58 \$3.95, Fokker D.23 \$5.95, Brewster Buccaneer \$4.95, SM-91 (May 83) \$6.95, SM-92 (May 83) \$6.95, VL Pyorreaky \$3.95, Ki-64 (Oct 83) \$3.95, Ki-108 (Dec 83) \$6.95, Ki-60 (Dec 83) \$3.95.

These kits can be obtained from Ken LaSala, 703 Cannon Rd., Silver Spring, MD 20904. Add \$1.50 for postage in US; add 20% for surface or 70% for air mail outside the US. Payment by cash, check from US bank, or Money Order in US currency payable to KPL Models-Ken LaSala.



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"Along with SAFO #27, I received a letter from Wayne Denny (SAFCH #422) who wrote: 'Relating to your article in SAFO #27 about the Howard DGA-6 in Mexico, it should be pointed out that only one DGA-6 was built. This was the famous race plane, Mister Mulligan. Ben Howard and his wife were killed when this aircraft crashed in New Mexico while competing in the 1936 Bendix Trophy Race. The DGA-6, as such, never flew again, although a replica was built a few years ago. This aircraft also crashed, killing the builder and his wife. The Howard DGA's you describe must have been either DGA-8 or DGA-15 aircraft.'

"Along with this letter came scale drawings of the Howard DGA-6, DGA-8, and DGA-15. I immediately went to my primary reference, the book by Villela, which contains a photo captioned "Two of the Howard DG-6 (NC-18282 and NC-18285), similar to the famed Mr. Mulligan, which were part of the air force of the rebel Saturnino Cedillo." Since I apparently know very little about light planes, and I had never heard of the DGA-8 and -15, I took Sr. Villela at his word and perpetuated the error.

"Besides writing to Mr. Denny to thank him personally for his kindness and discretion, I am writing to you so that you can publish this correction along with my apologies. Conversion of the Hawk kit of the Mr. Mulligan into a DGA-8 is rather more difficult than I had thought based on the rather poor photo in the book.

"In my last letter, I pointed out that a typographic ghost had placed a Lebanese insignia on the wing of a Hungarian trainer, and this must have infuriated the ghost, because it took instant and furious retaliation against my articles. In my manuscript of 'Mr. Brown' when I said 'with Poland turned into a Socialist country', it appeared as 'Poland betrayed to the communists'. In my manuscript about the DGA in Mexico, when I said

that the Mexican revolution 'developed mainly as a phenomenal peasant's revolt' it appeared as 'developed mainly as a peasant's revolt'; and when I described Shulgovsky's book as "a work on Cardenas' government", it appeared that Shulgovsky had worked in the Cardenas government. Touchy and vengeful ghost; what can I do to placate its anger? I promise not to look at any miniskirts for the next two weeks, as a propitiatory sacrifice."

"In Tlalpam, a small provincial town in the south of Mexico City, there was recently held an officially sponsored model show. It was very interesting and huge crowds attended. I was surprised to see, at the stand of Necomisa (the company that manufactures Monogram and Lindberg kits for Mexico) a new line under the brand name 'Pegaso'. This line consists of some of the very old 1/48-scale Lindberg kits. Those on exhibit were the Beech Bonanza, Sweet Pea, Stinson Station Wagon, Piper Cub, Monocoupe, Mooney Mite, and Republic Seabee. The Piper and Stinson still look good, while the Monocoupe and Seabee are very interesting."

Ismael Garcia Llaca (SAFCH #52), Monte Alban 600, Col. Vertiz Narvarte, 03600 Mexico, D.F. MEXICO

(Editor's note: I am pretty sure that the insignia shown on the Hungarian trainer in SAFO #26 is not Lebanese. It is a little-appreciated fact that after the end of WWII, and before adopting the insignia presently carried on Hungarian military aircraft, several different insignia were used. The same was true for Bulgaria and, possibly, for Romania. Perhaps one of our readers could provide clarification. I wish we could blame the changes to Ismael's manuscript on the 'typographic ghost', but all blame lies with your editor. My sincerest apologies, and I'll try to do better in the future.)

"I would like to add some comments regarding my recent article on Israeli P-51D Mustangs which appeared in SAFO #27. Firstly, the drawings by E. Hourant were done quite independently of mine. Therefore, I cannot verify or refute the markings which are at variance with those I have shown. All I can say is that my drawings were based on photographic references, both black and white and colour. But, all this proves is that the markings were as I illustrated at the time the photos were taken.

"Unfortunately, the markings and camouflage colours and patterns used in the early years of the IDFAF are often confusing, especially regarding the P-51. The Mustang commenced its service in the IDFAF with a natural-metal finish (although some were actually painted silver). As usual, there were exceptions. For example, during the War of Independence at least one Mustang was camouflaged.

"In the mid-fifties, when the Mustang were allocated to attack squadrons, most were camouflaged to meet their new role. It appears that the camouflage schemes were rather haphazardly adopted. Some aircraft were painted medium green and tan (see Fig. 8, Mustang '19'), while others were in a dark brown and tan splinter scheme. At the time of the Sinai Campaign (1956), yellow and black campaign stripes were roughly hand painted around the rear of the fuselage, often partially covering the aircraft number.

"It was not until after the end of the Sinai Campaign that the camouflage colours and patterns were standardized with most Mustangs ending their service life in a blue-gray and tan scheme.

"An important error in my article which I must correct concerns Mustang '73' (camouflaged in the brown and tan splinter scheme) and its pilot, Yonatan Atkes. On 2 November 1956, an Israeli pilot flying a Mystere IVA was shot down while attacking Egyptian positions in the southeast Sinai. Yonatan Atkes and his Mustang were providing fire support for a rescue attempt when his aircraft was hit by ground fire and crashed. Although wounded, Atkes managed to scramble out of the cockpit, but he soon lost consciousness only to awake to find himself a prisoner of the Egyptians. The pilot Atkes was trying to protect, Benny Peled, managed to evade capture. (He later became CiC of the IDFAF.) Atkes captivity was very unpleasant for he was frequently tortured by his captors. After nearly three months of captivity, Atkes and three other Israeli service men were exchanged for 6000 Egyptian POWs. In December 1977, Atkes piloted the first El Al flight to Egypt, carrying Israeli officials in response to President's Sadat's peace-seeking trip to Israel."

Harry Margulies (SAFCH #264), PO Box 346, Toorak, Victoria 3142, AUSTRALIA

#### LAOTIAN AND CAMBODIAN AC-47 GUNSHIPS

The Laotian AC-47 program started in January 1970 when eight aircraft were transferred to the Royal Laotian Air Force (RLAF). Laotian crews received training at Udorn, RTAFB. By July 1971, the RLAF had ten AC-47's which was the maximum number of aircraft that they had operational at any one time. All RLAF AC-47's were equipped with MXU-470 Miniguns.

At least two natural-metal AC-47's were delivered. Later, however, all aircraft were painted in standard USAF camouflage with flat-black under surfaces. The national insignia was carried on the fuselage and wings, and a small Laotian flag was carried on the tail. The Laotian call-sign for the AC-47 was "Spooky". Not a single friendly Laotian outpost was lost while AC-47 support was available.

The following tail numbers have been recorded: 263, 047, 927, 010, 117, 133, 213, 370, 625 & 516.

The Khmer (Cambodian) AC-47 program started in the summer of 1971, when two USAF C-47 were converted. Each aircraft received three 0.50-cal machine guns. By 1974, the Khmer Air Force (KAF) has 14 AC-47's.

Khmer AC-47's carried the standard USAF camouflage finish, with KAF insignia on the fuselage and wings. At least one aircraft also carried a unit emblem on the nose (see Fig. 1). The Khmer call-sign for the AC-47 was "Lougaru", French for Werewolf.

It was reported that by 1975 all the KAF AC-47's had their guns removed so that they could be used to evacuate civilians threatened by the advancing Khmer Rouge.

I am presently researching the histories of the Laotian and Cambodian Air Forces, and I would appreciate corresponding with anyone who can provide further information. For the Laotian Air Force I need photos of AC-47, T-6, U-17, T-41, UH-34, Beaver, and Alouette helicopters. I also need pilot's wings, aircrew wings, and any uniform patches or badges (including that shown in Fig. 2). For the Cambodian Air Force I need photos of AU-24, A-1, MiG's, T-37, C-123, and any helicopters or trainers. I also need pilots wings (prior to 1970), and uniform patches and badges (including that shown in Fig. 3).

Ken Conby (SAFCH #639), 7614 Trailwind Drive, Montgomery, OH 45242

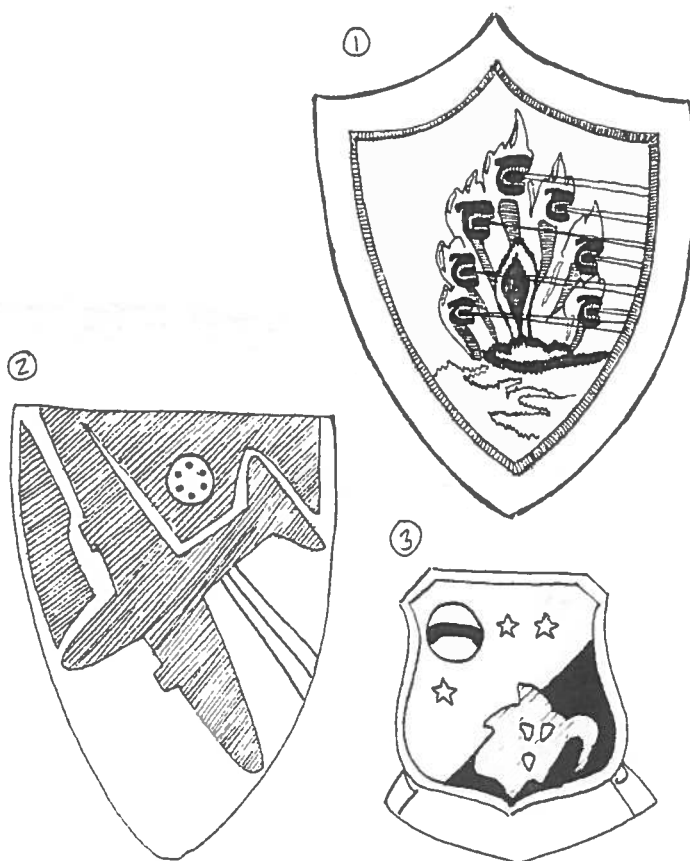


Fig. 1. KAF Shoulder Patch. Sky blue with dark blue border. Mythical seven-headed cobra (Naga) breathing red flames. This patch was painted on the nose of at least one AC-47.

Fig. 2. RLAF Shoulder Patch. Black upper half and aircraft, yellow lower half.

Fig. 3. KAF Pocket Patch. The first KAF AC-47 crew that trained at Udorn arrived at graduation ceremonies wearing this patch. From a photo I can make out the following: Sky blue upper half, navy blue lower half, yellow sphere with black shape inside, white stars, red bomb bursts (?) with white detail, and yellow scroll with writing. Can anyone provide more information?

AVIACION LATINOAMERICANA, Vol. 1. No. 1 Nov-Dec 1982 (16 pages) 17 cm by 22 cm. From Argentina, via our good friend and SAFO member Jorge Felix Nunez Padin, comes the first issue of a new aviation magazine. Although this issue is mostly devoted to Argentine aviation, the editors obviously intend to broaden the coverage to include all of Latin America: "Within our pages we will provide to spotters and plastimodellers of the whole world accurate and detailed information about the story of civil and military aviation of our region, through investigation labors carried out by the main argentine fans and farther on (that is what we hope) with the contribution of friends of the area. The idea is, by this form, to promote the interest on the part of new enthusiasts in the labor of data's searching and the tracking of our aviation's story, trying to reach the deepest part of each subject, inviting our readers to bring new data, to modify concepts, etc."

If all goes well, abstracts of ALA will appear regularly in the SAFO, but a detailed review will be given here to demonstrate the quality of this very promising magazine.

Articles appearing in the first issue include: "Los Primeros Aviones de la Fuerza Aerea Argentina - Henri Farman 50 HP" by Carlos Arturo AY; 3 pages including one page of drawings. "Los Fairey IIIF y IV en la Aviacion Naval Argentina" by Jorge F Nunez P; 7 pages including 3 pages of drawings, one photo 'AP-1', and complete service

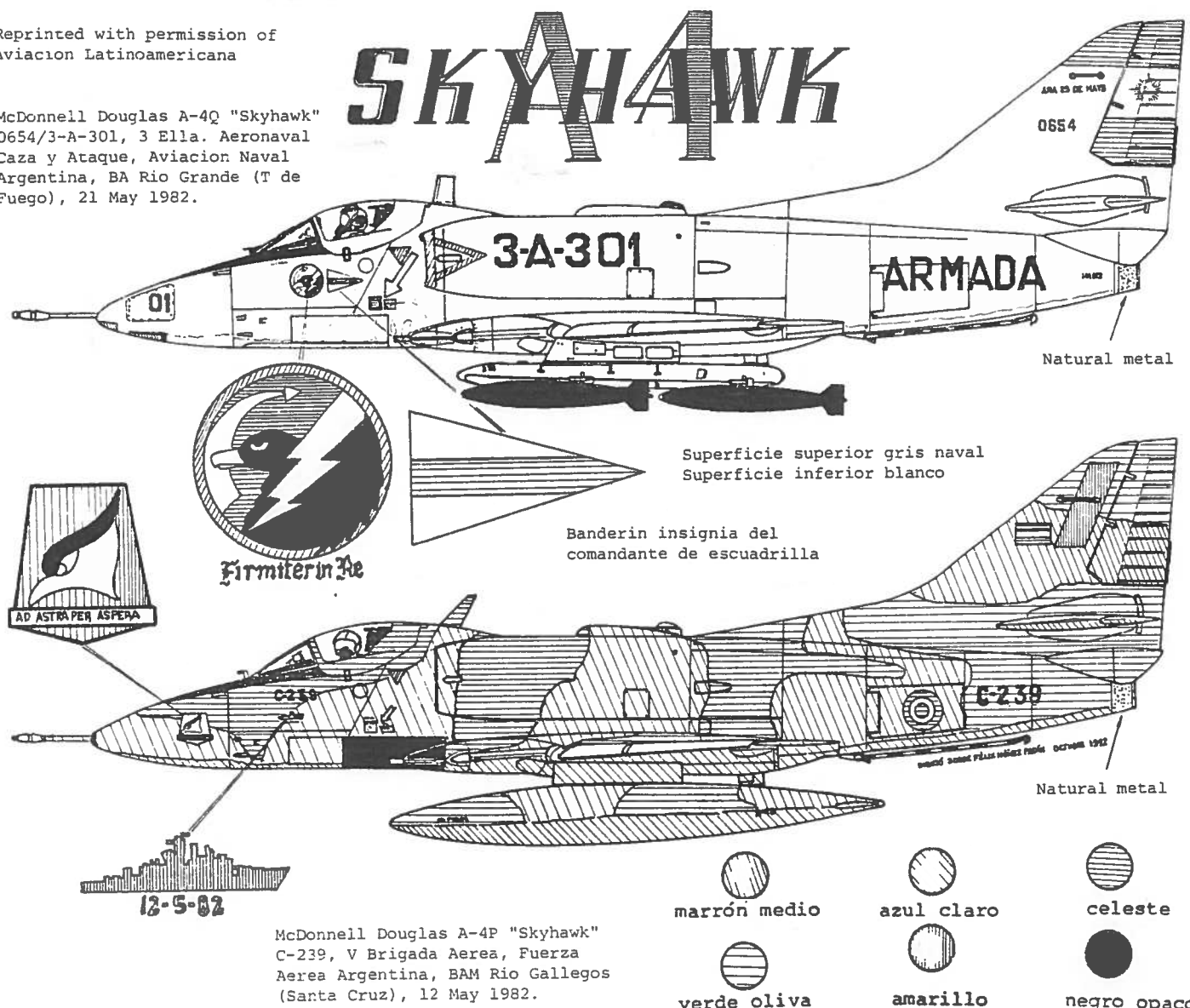
histories of all 7 aircraft. "Lineas Aereas Privadas Argentinas SA (LAPA)" by Francisco Halbritter; 3 pages including 6 photos and fleet list. "Accidentes/Wrecks" half page covering the period July-October 1982 including military a/c from Brazil & El Salvador as well as Argentina. "Novedades Militares Latinoamericanas" one page with information on the Dutch Antilles, Argentina, Brazil, Chile, Mexico, & Peru. "Registro de Aeronaves de la Republica Argentina" one page of Argentine registrations LV-FZA to LV-FXZ including type, c/n, previous identity, date of registration (1957), remarks, and two photos.

A six-month subscription is US\$6.00 for Latin America and Spain; \$7.00 for USA, Canada, Europe, & Africa; and \$8.00 for Asia and Australia. Your cheque or money order (no cash please) made out to Mr. Eduardo di Poi should be sent to Aviacion Latinoamericana, Casilla de Correo 125, Sucursal 28, 1428 Buenos Aires, ARGENTINA.

This first issue represents a very impressive start and there is every indication that even better things are to come. This magazine is highly recommended to all SAFCH readers who have even the slightest interest in Latin American aviation and it is hoped that many of you will subscribe. In addition, all SAFCH members specializing in Latin American aviation should seriously consider contacting ALA to offer your assistance. Helping regional magazines such as ALA is the best way for the SAFCH to "promote interest in the history and modeling of the aircraft of the smaller countries".

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Aviacion Latinoamericana

McDonnell Douglas A-4Q "Skyhawk"  
0654/3-A-301, 3 Ella. Aeronaval  
Caza y Ataque, Aviacion Naval  
Argentina, BA Rio Grande (T de  
Fuego), 21 May 1982.



# Argentine A-4 Skyhawks

In the recent fighting in the Falklands/Malvinas, the mainstays of the Argentine air offensive against the British fleet were the A-4 and the Mirage 5 (IAI Dagger). With more A-4's available, this aircraft carried the brunt of the fighting.

Two versions of the A-4 serve with the Argentine Air Force and Navy, the A-4P and A-4Q, respectively.

1. A-4P, Argentine Air Force, C-215. This drawing illustrates the color scheme carried by aircraft in the first batch of A-4Ps delivered. The aircraft is bare metal overall; all lettering is black; the anti-glare panel is flat black; and the intake warnings and ejection-seat triangles are red/white. Standard A-4 rescue markings are carried. I do not know the colors of the unit marking applied to this aircraft. Source: US Photos, Dan Hagedorn (slide).

2. A-4P, Argentine Air Force, C-233. Later, the Skyhawks were delivered in a camouflage scheme consisting of dark brown/dark green over light grey. All lettering is black; the avionics hump is dark grey; the intake warnings and ejection-seat triangles are red/white, the rescue arrow is yellow; and the blade antenna appears to be light grey. Source: Air International (photo), Dan Hagedorn (slide).

3. A-4P, Argentine Air Force, C-239, Circa 1982. Aircraft appears to be dark green/over light grey. Note the reduced size of the national insignia. All lettering is black. The orange panel on the fin is probably a recognition marking. Aircraft C-239 carried a white ship-kill marking under the cockpit (see detail). Source: Time Magazine, (photo).

4. A-4Q, Argentine Navy, A-216, Third Naval Fighter/Attack Squadron., circa 1980. Aircraft is light gull grey over white. Wing markings consists of the Argentine Navy anchors in four positions. Upper rudder stripping extends across entire fin. All lettering is black; the intake warnings and ejection-seat triangles are red/white; and the avionics hump is dark grey. This squadron is reported to have suffered extremely heavy losses, possibly as much as a third of the squadron.

Total Skyhawk losses during the fighting are difficult to determine. If one believes all the claims, 25+ Skyhawks were lost by Argentina.

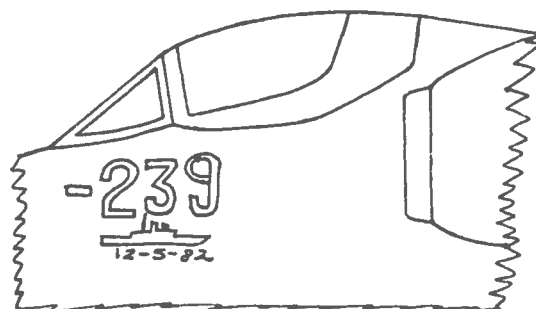
It may be some time before the true story of the battles is known. But it was reported, by both the British

and independent observers, that the Argentine Air Force and Navy were professional and persistent in their attacks against some of the most potent SAM and gun defenses in recent times.

I would like to take this opportunity to thank the many people who have provided the information, photos, sketches, and drawings that have made this series on Latin American aircraft possible. Regulars like Dan Hagedorn, Mick Burton, Jorge F. Nunez Padin, Carlos Fortner, and many other have been extremely helpful. Without them I would be unable to provide this information to the SAFCH.

This research has now reached a point where these reports will be coming out on a more frequent basis. Of course, there is still a lot of information out there. Everytime I think that a particular aircraft type is covered, a new scheme or some new piece of information comes to light. If any member has any information, photo or needs a sketch of the aircraft to fill in, please contact me. For those with questions, again contact me and I will try to answer them to the best that I am able.

Nich Waters (SAFCH #2), 830 Kirkbride Ave, Pearl City HI 96872



Ship marking and date carried in white. Aircraft serial C-239 in black. Source: Time Magazine (photo).

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"I am most happy to supply you with the information you requested concerning the Indonesian Military Forces. Since I am unsure of the full amount of information you have, I will start from scratch, hoping that you will forgive me as I repeat items that you presently are aware of.

"There are four Branches of Service within the Tentara National Indonesia (Indonesian Armed Forces): TNI-AU (Angkatan Udara = Air Force), TNI-AD (Angkatan Darat = Army), TNI-AL (Angkatan Laut = Navy), and TNI-PO (Police). All four of the Forces fly aircraft. Air Force aircraft colors are: transports - silver; fighters - camouflaged or light blue; cargo - sand. Army aircraft are all helicopters and they are camouflaged. Navy aircraft are grey with a tinge of light blue (for modeling purposes, a light grey is excellent). Police aircraft are all dark olive.

All forces use the pentagon as the national insignia with the Indonesian flag as a fin flash. (The pentagon stems from the 'Pancasila', Sanskrit for 'Five Principles', which is the basis for the Indonesian political system. The five principles are: Belief in one God, Just and civilized humanity, Nationalism, Democracy, and Social justice.) The border of the pentagon is flat red and the inner portion is flat white. (Red, the color of

blood, stands for material things, whereas white stands for spirituality.)

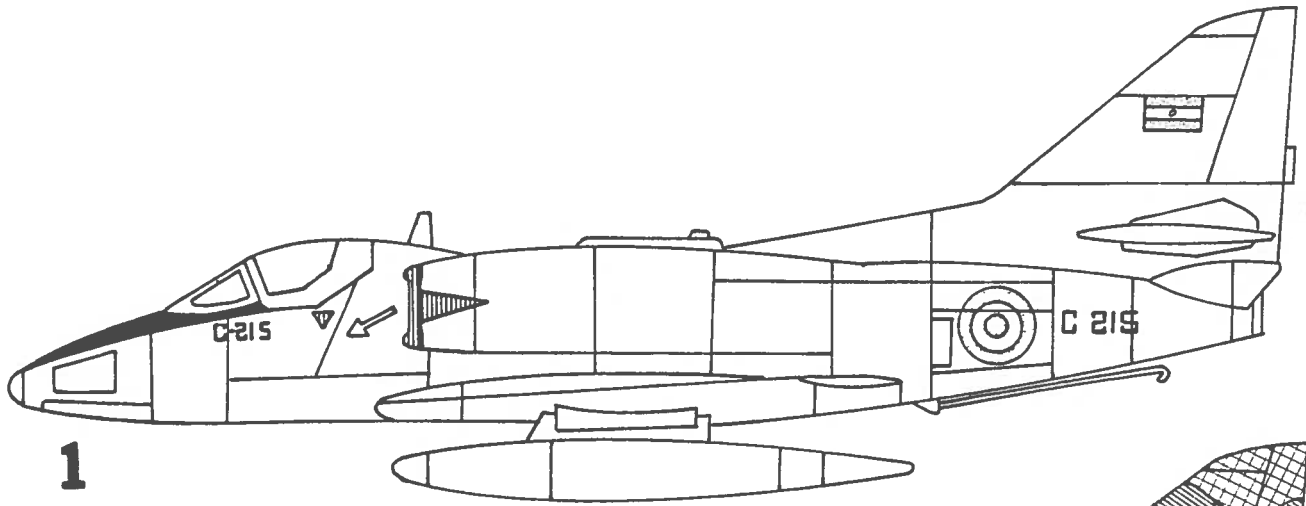
The TNI-AD puts a five-pointed star of olive drab in the center with the points touching the corners of the pentagon; the TNI-AL uses a grey anchor such as the one shown below but without the wreath; and the Police insert the wreath but no anchor. The TNI-AU keep the field within the pentagon blank.

"The width of the border of the pentagon is 2/7ths of the distance from the center. The fin flash is a rectangle 5/6ths as high as it is wide. The red top is one-half of the rectangle. The pentagon is rarely found on the wings. The only time I have sighted it was on light aircraft.

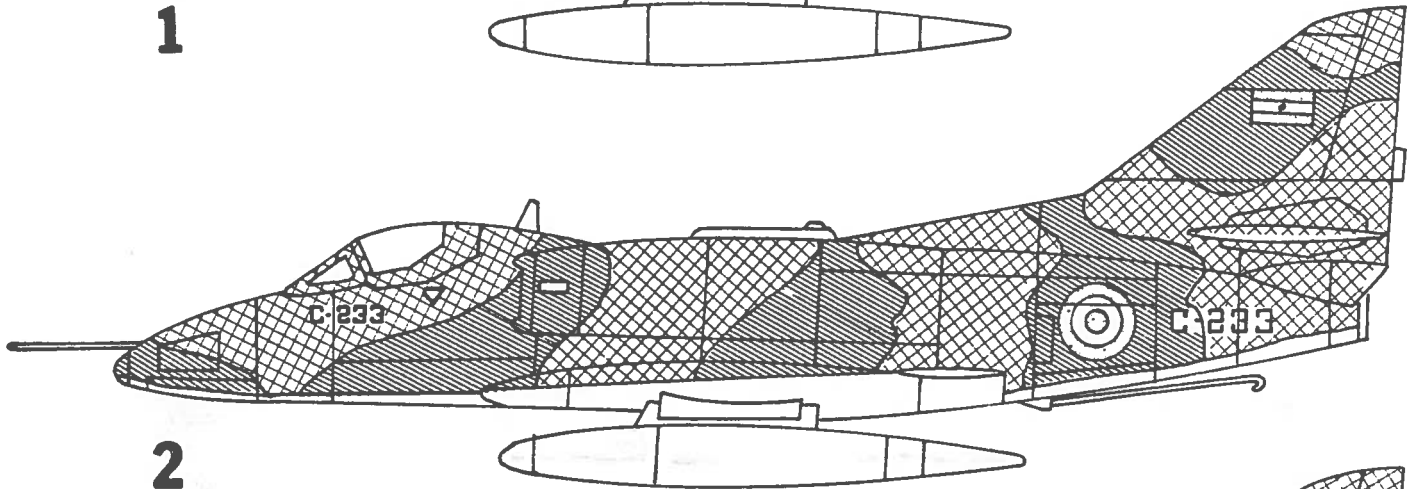
"I hope I have been able to assist you and have not repeated too many items that you already know. I have added background to the symbology because it interests me and because I think it is important to know why something is done.

"I appreciate your offer to maintain my anonymity. There is no regulation requiring it, although I would prefer it. The data I have given is available to anyone living in Indonesia."

(Editor's note: The above letter was passed on to the SAFO by Creighton Kern SAFCH #541.)

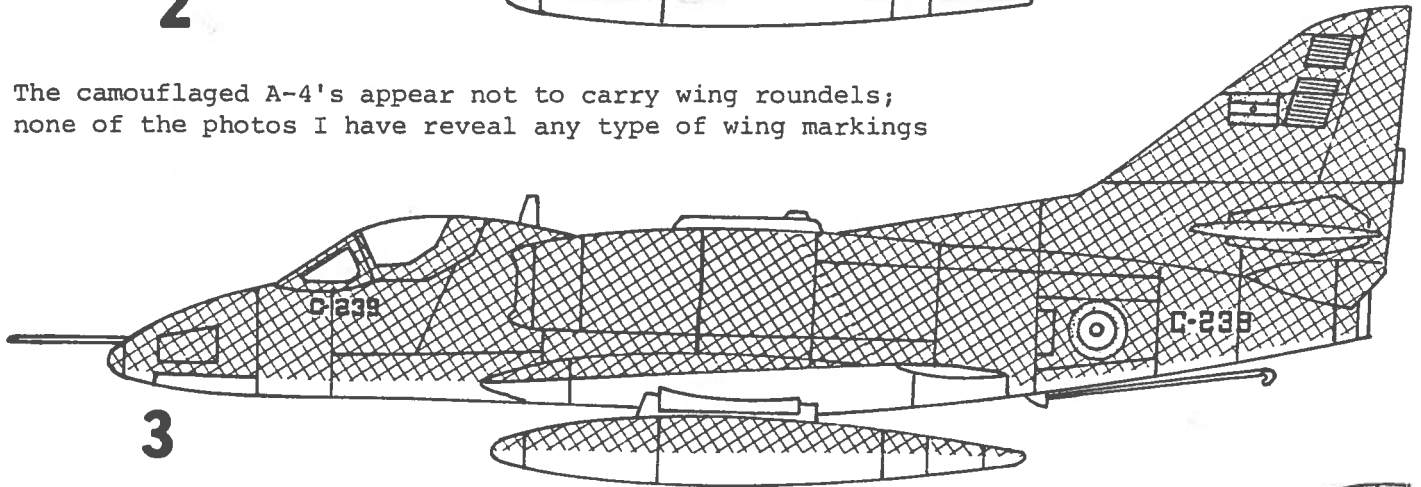


**1**



**2**

The camouflaged A-4's appear not to carry wing roundels;  
none of the photos I have reveal any type of wing markings



**3**



**4**



# A-20K in the Brazilian Air Force

As part of an assistance program, the Brazilian Air Force received from the USAAF, via the Lend-Lease program, a total of thirty-one Douglas A-20Ks during 1944. The first thirteen aircraft were ferried from the United States and arrived at Santa Cruz AFB in July of 1944, whilst the second lot of eight airplanes was received at Santa Cruz in August and the last batch of A-20s, comprising nine aircraft, arrived at Santa Cruz the following month. The thirty-first A-20K was received during 1944, but this aircraft, a grounded war weary, was used solely as an instructional airframe for A-20 mechanics at the 1º Grupo Misto de Instrucao based at Cumbica AFB.

Although the two units that were to receive the A-20s had been created on 5 October 1944, the A-20s remained at Santa Cruz for almost three months, flying both coastal patrol missions and conversion on the aircraft. Finally, on 11 December, the airplanes were officially distributed to the 1º Grupo de Bombardeio Leve and the 2º Grupo de Bombardeio Leve, respectively based at Canoas AFB near Porto Alegre and Cumbica AFB near Sao Paulo. Although fifteen aircraft were officially allotted to each unit, there are clear implications that one of the two units was short one aircraft since one A-20 was deactivated prior to its distribution, presumably the Havoc was lost in an accident.

Both at Canoas and at Cumbica, the Havocs were used for ground attack duties, and as such, the aircraft were extensively used in a series of wargames and exercises throughout the late 1940s. However, on 24 March 1947, both the 1st and 2nd GBL were deactivated; the A-20s belonging to the extinct 1st GBL were transferred to Cumbica AFB and together with the airplanes of the late 2nd GBL, they formed the 1st Squadron of the 10th Aviation Group which was created on the same date the GBLs were deactivated. Although serving under what was apparently a new unit, the roles remained unchanged until mid-

1951, when it was decided to reassign a new mission to the A-20s. Feeling that there was a very distinct need for a reconnaissance aircraft in the FAB, it was decided that the A-20 would be stripped of most of their armament and in lieu of the bombsight, a camera was installed. In their new role, the airplanes flew alongside suitably modified B-25s until the mid-1950s, when it was decided to deactivate the A-20s due to lack of spares and a high attrition rate that cut down the number of A-20s to a bare minimum. Most of the aircraft were scrapped outright but at least three aircraft found their way either to the Escola de Especialistas da Aeronautica at Guaratingueta or to the Centro Tecnico Aeroespacial at San Jose dos Campos.

Initially, the A-20s flew with their original USAAF camouflage which consisted of Olive Drab upper surfaces and Neutral Grey under surfaces while the leading and trailing edges of the wings, tailplane and engine pods were finished in medium green. During the same period the aircraft flew with American "Stars and Bars" and USAAF serial numbers until early 1945 when the FAB star and FAB serial numbers were applied on the aircraft. After their first IRANS, the airplanes were finished in the same manner although deleting the medium green. The last color scheme used by the A-20s was a very attractive camouflage that was introduced between 1950 and 1952, although it was in no way related to the new mission adopted by the A-20s, it was definitely much better suited to the terrain in which the aircraft flew. This camouflage consisted of Light Sand upper surfaces and Light Grey under surfaces. Over the Light Sand, irregular Dark Brown or Dark Green splotches were applied.

Jackson Flores, Jr. (SAFCH #537), Museu Aeroespacial, Av. Mal. Fontenelle 2000, Campo dos Afonsos, 21.740 Rio de Janeiro, BRAZIL

| AIRCRAFT    | C/N   | USAAF S/N | FAB S/N    | REMARKS   |
|-------------|-------|-----------|------------|---|
| A-20K-10-DO | 23379 | 44-156    | A-20K 6061 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 28/01/46. During a ground-attack training mission on 09/08/50 near Guarulhos, Sao Paulo, aircraft stalled after completing its bombing run and crashed into the ground with loss of aircraft and 3 lives. Deactivated 27/11/50.            |
| A-20K-10-DO | 23380 | 44-157    | A-20K 6062 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. On 05/09/55 in Bonsucesso, Sao Paulo, aircraft suffered a malfunction in the left engine immediately after takeoff. Pilot attempted to make a go-around, but crashed into trees which border the airfield. Deactivated 03/01/58. |
| A-20K-10-DO | 23381 | 44-158    | A-20K 6063 | No data available except it was deactivated in 1947.  |
| A-20K-10-DO | 23382 | 44-159    | A-20K 6064 | Arr Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. On 15/07/48 at Cumbica AFB, aircraft was rammed by a B-25J that was making an emergency landing, the accident resulted in both a/c being written off. Deactivated 21/09/48.   |
| A-20K-10-DO | 23383 | 44-160    | A-20K 6065 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Aircraft deactivated 18/11/49.   |
| A-20K-10-DO | 23384 | 44-161    | A-20K 6066 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Deactivated following accident (date and locale unknown) on 03/08/56.  |
| A-20K-10-DO | 23385 | 44-162    | A-20K 6067 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Aircraft was w/o 28/08/49 at Cumbica AFB during a low and slow peel-off. Aircraft stalled and crashed into ground, resulting in 3 deaths.  |
| A-20K-10-DO | 23386 | 44-163    | A-20K 6068 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Aircraft grounded and reclassified for ground instruction resulting in its transfer to the Specialist's School at Guaratingueta on 05/12/56. Aircraft scrapped at Guaratingueta 07/02/68.  |
| A-20K-10-DO | 23387 | 44-164    | A-20K 6069 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Aircraft w/o 11/12/50 at Cumbica AFB. The a/c crashed into the ground after takeoff for a night mission. Cause of the crash undetermined. Deactivated 12/03/51.  |
| A-20K-10-DO | 23388 | 44-165    | A-20K 6070 | Arr in Brazil 07/44; to 1st GBL 11/12/44. Deactivated in 1947. No further data is known.  |
| A-20K-10-DO | 23389 | 44-166    | A-20K 6071 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Aircraft was w/o on 15/04/55 near Sao Miguel Paulista, Sao Paulo. Deactivated 18/04/56.  |

|             |       |        |            |  |
|-------------|-------|--------|------------|--|
| A-20K-10-DO | 23390 | 44-167 | A-20K 6072 | Arr Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Deactivated 21/11/57.  |
| A-20K-10-DO | 23391 | 44-168 | A-20K 6073 | Arr in Brazil 07/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Deactivated in 1952. No further data is known.  |
| A-20K-10-DO | 23392 | 44-169 | A-20K 6074 | Arr in Brazil 08/44; to 1st GBL 11/12/44; to 2nd GBL 07/10/47. Deactivated 12/05/55. No further data is known.   |
| A-20K-10-DO | 23608 | 44-385 | A-20K 6075 | Arr in Brazil 08/44; a/c not distributed to any unit due to accident in 1944. Deactivated in 1945.   |
| A-20K-10-DO | 23609 | 44-386 | A-20K 6076 | Arr in Brazil 08/44; to 2nd GBL 11/12/44. Aircraft was w/o in 05/50 at Cumbica AFB. A series of mishaps prior to landing (engine failure, left u/c inoperative, and locked flaps) resulted in the a/c crashing into the ground. Date of deactivation unknown.  |
| A-20K-10-DO | 23610 | 44-387 | A-20K 6077 | Arr in Brazil 08/44; to 2nd GBL 11/12/44. Deactivated 02/10/50.  |
| A-20K-10-DO | 23611 | 44-388 | A-20K 6078 | Arr in Brazil 08/44; to 2nd GBL 11/12/44. Deactivated 22/01/51.  |
| A-20K-10-DO | 23612 | 44-389 | A-20K 6079 | Arr in Brazil 08/44; to 2nd GBL 11/12/44. Deactivated in 1946.   |
| A-20K-10-DO | 23613 | 44-390 | A-20K 6080 | Arr in Brazil 08/44; to 2nd GBL 11/12/44. Deactivated 20/12/54.  |
| A-20K-10-DO | 23614 | 44-391 | A-20K 6081 | Arr in Brazil 08/44; to 2nd GBL 11/12/44. On 30/03/54, during a simulated attack against the Santo Amaro Dam, near Sao Paulo, the a/c struck a series of high-tension wires that were adjacent to the dam. The a/c plunged into the water at a high speed and sank immediately. Deactivated in 1946. |
| A-20K-10-DO | 23615 | 44-392 | A-20K 6082 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Deactivated in 1946.   |
| A-20K-15-DO | 23760 | 44-537 | A-20K 6083 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Deactivated in 1946.   |
| A-20K-15-DO | 23761 | 44-538 | A-20K 6084 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. On 08/09/47, the a/c was w/o during a low recovery after a strafing run at Cumbica AFB. Deactivated in 1948.   |
| A-20K-15-DO | 23762 | 44-539 | A-20K 6085 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Reclassified as a ground instruction a/c and transferred to the Specialist's School at Guaratingueta on 14/03/56. Deactivated 26/07/68. Aircraft restored and placed on display at the Museu Aeroespacial at Campo dos Alonsos in 1979.                    |
| A-20K-15-DO | 23763 | 44-540 | A-20K 6086 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Reclassified as an instructional airframe and transferred to the Centro Tecnológico da Aeronautica on 05/12/56. Deactivated 19/07/66.  |
| A-20K-15-DO | 23764 | 44-541 | A-20K 6087 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Deactivated 09/10/51.  |
| A-20K-15-DO | 23765 | 44-542 | A-20K 6088 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Coming in for approach at Cumbica AFB on 07/07/46, a/c stalled and crashed. Deactivated in 1946.   |
| A-20K-15-DO | 23766 | 44-543 | A-20K 6089 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Deactivated in 1947.   |
| A-20K-15-DO | 23767 | 44-544 | A-20K 6090 | Arr in Brazil 09/44; to 2nd GBL 11/12/44. Deactivated 03/08/56.  |
| A-20K-15-DO |       | 44-336 | A-20K 6091 | Arr in Brazil in 1944; to 1º Grupo Misto de Instrução at Cumbica AFB and used as an instructional airframe until its deactivation on 18/07/55.   |

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"Fritz Braun (SAFCH #220) and I have been exchanging such data since 1976. While we are currently engaged in the time-consuming and difficult task of making additions and correction to the prints of national military aircraft markings to be used in MILITAIR 1983, I will gladly continue to send to you data for use in the SAFO. My present contribution consists mainly of some problems that have been occupying my thoughts for the last couple of weeks.

"Both Fritz and I are ignorant of the new Senegambia Air Force roundel as well as that for the Gambian Air Force which, according to FLIGHT INTERNATIONAL (6 November 1982), was merged with l'Armee de l'Air du Senegal to form Senegambia.

"There is no military whatsoever in Kiribati (SAFO #25 was wrong to imply that the new CASA C.212 'T3-ATC' is military). Kiribati's Air Tungaru says they fly the C.211 strictly as an airliner.

"I usually find Fritz to be over 90% correct, but I do have strong reservations on the accuracy of his recent statements about the national markings for Benin, Mongolia, and Guinea-Bissau.

"I disagree with Fritz's contention that there has been a change in the Benin AF roundel. His new roundel is based (1) on a photograph of a Benin AF C-47 which was taken in a poorly lighted hangar and is so dark that the roundel is almost imperceptible, and (2) on a US DIA chimera inspired by the small red star at the top near the hoist on a large green field of the Benin flag. In addition, the USDAO that covers Benin is in the US Embassy at Abidjan and they have professed a lack of eyewitness evidence in this matter.

"On the basis of intelligence reports gleaned from a

Mongolian journal's photographs of Mongolian MiG-21s and also different photos in the Cuban 'Olivo Verde' of Mongolian MiG-21s, I have concluded that the red Soyombo symbol (yellow on the hoist red strip of the Mongolian flag) is carried on the tail of Mongolian aircraft and nowhere else. The gold-rimmed 5-pointed red star with the golded Soyombo inside it seen on Polish TV is exactly the same as the star atop the Mongolian coat of arms; perhaps this insignia is carried on VIP aircraft or Air Mongol airliners.

"As far as I know, all the roundels attributed to the Guinea-Bissau AF are derivatives of Fritz's original drawing. This insignia was described to Fritz by a Portuguese refugee. This original drawing is suspect both because the source had to have fled Guinea-Bissau at a unlikely late date if he was to glimpse the national markings on the first batch of MiGs delivered to Guinea-Bissau, and it seems unlikely that an unauthorized person could have gotten close to a secluded, patrolled, off-limits, air base, as is the case in Benin according to news reports. Even the US DIA chart does not hazard to conjure up a roundel for Força Aerea de Guiné-Bissau, just a flag fin flash.

"Fritz's new Afghan AF roundel is accurate beyond doubt.

"A letter from the Chief Archivist of Mauritius recently arrived containing photocopies of the Mauritian Police roundel as carried on Cheetah helicopters. The Mauritian Police constitute for all practical purposes a real defence force with land, air, and sea units, but they rather use a gross euphemism."

Creighton Kern (SAFCH #541), 25 South Monroe St., Ridgewood, NJ 07450

# Brazilian P-40's

Early in WWII, Brazil became important to the Allies as a stop on the strategic aerial supply route from the USA to Africa. On 25 July 1941, the Brazilian government gave permission to Panair do Brasil (a subsidiary of Pan American Airways) to use American financial support to build new airports and improve existing ones in northern and northeastern Brazil. One of the most important base in this area was Parnamirim airfield.

Parnamirim airfield had its beginning in 1927 when the famous French airplane "Nungesser-et-Coli" stopped there on its around-the-world flight. Later, the airfield was used by Air France and the Italian airline LATI. With the entry of the United States into the war on 7 December 1941, the Brazilian decision to allow the Allies to channel airplanes, material, and personnel through the so-called "Victory Corridor" assumed even greater importance. Therefore, on 2 March 1942, a Presidential Decree created the Natal Air Base on the site of Parnamirim airfield with a "Brazilian Base" on the west side of the field and a larger "American Base" on the eastern side.

In order for Brazil to undertake a greater share of the responsibilities for its own defense, the Brazilian government requested that the American authorities provide Brazil with aircraft under the Lend-Lease Program. As a consequence, on 7 August 1942, the first Brazilian P-40E's landed at Natal.

After the sinking of several Brazilian merchant ships, the Brazilian government declared war on Germany and Italy on 31 August 1942. Immediately, the Brazilian Air Force began to patrol the coast and provide protection for shipping. Aircraft based at Natal and used for this purpose were AT-6B's, P-40E's, and A-28A's,

According to a veteran Brazilian pilot, the first Bra-

zilian P-40E's were painted in RAF desert camouflage - dark earth and mid stone upper surfaces and azure blue under surfaces.

By the end of 1942, 8 P-40's (models E and K) were operating from Natal Air Base. Between November 1942 and March 1943, the Brazilian Air Force received 43 P-40K's. These aircraft were based at Natal and Recife Air Bases. Two P-40K's were sent to the Aviation Technical School at Sao Paulo. During 1943, nine P-40M's operated from Natal, Recife, and Salvador. From October 1944 to March 1945, 41 P-40N's arrived. These aircraft operated from Natal, Rio (Santa Cruz), and Rio Grande do Sul (Canoas).

The Brazilian 1st Fighter Squadron received instruction on P-40's at Agua Dulce (Panama) before going to the United States and later to Italy. In mid 1945 the officers of the Brazilian 2nd Fighter Squadron, operating P-40N's from Rio, asked the Aeronautics Minister for permission to fight in the Pacific.

At first, the Brazilian P-40's were serialised in a series starting with '01', but in August 1945 these numbers were changed to a series starting with '4020'.

The Curtiss P-40 flew with the Brazilian Air Force until April 1958. Aircraft '4064' was preserved as a monument, and later transferred to the Aeronautical Museum in Rio.

(Editor's note: This article was written by Antonio Linhares, with translation by Annabella C.S. Linhares, and drawings by Jose Fernandez Macedo. It originally appeared in EM ESCALA, the magazine of IPMS-BRAZIL, and is reproduced here with the kind permission of the author and editor.)

## AIRCRAFT OF THE SMALL AIR FORCES

PANAMA  
1933 GUARDIA NACIONAL DEL AIRE  
(AIR NATIONAL GUARD)  
1941?/1945 FUERZA AEREA DE LA GUARDIA NACIONAL  
1/ /69 FUERZA AEREA PANAMENA  
(PANAMANIAN AIR FORCE)

|                                    |          |   |
|------------------------------------|----------|---|
| IAI (AERO COMMANDER) 1123 WESTWIND | 75/7981? | 1 |
| KEYSTONE COMMUTER                  | 33/      | 1 |
| LOCKHEED L-188C ELECTRA            | 74/82    | 1 |
| MARTIN PBM-5 MARINER (LOAN)        | 72       | 2 |
| PIPER PA-31 CHEYENNE               | 80       | 1 |
| " PA-31 NAVAJO                     | 78/80    | 1 |
| " PA-31T "                         | 80       | 1 |
| SHORT SC.7 SKYVAN 3M               | 78/82    | 1 |
| TRAVEL AIR SPEEDWING               | 33/      | 2 |

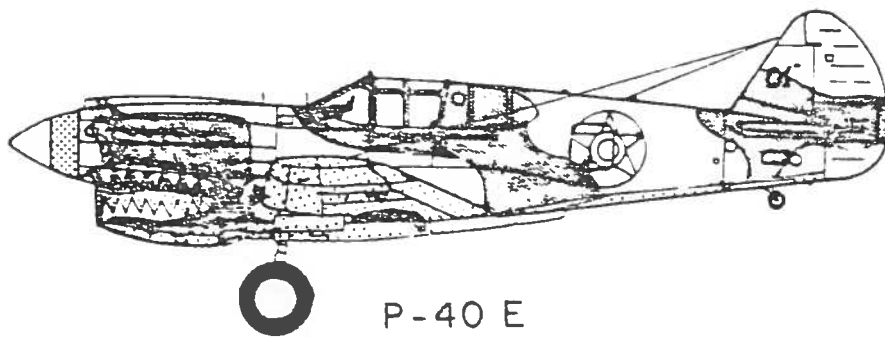
|  |        |    |
|--|--------|----|
| BELL 47G (BORROWED)                    | 72     | 3  |
| " UH-1B IROQUOIS                       | 76/81  | 12 |
| " UH-1D "                              | /78/82 | 2  |
| " UH-1H "                              | 71/81  | 10 |
| " 212, UH-1N                           | 75/82  | 5  |
| BOEING P-26                            | WWII   | 1+ |
| BRITTEN-NORMAN BN-2A-6R ISLANDER       | 75/81  | 1  |
| " " BN-2A-26 "                         | 76/81  | 1  |
| CASA 212 AVIOCAR                       | 82/    | 3  |
| CESSNA R172, T-41D MESCALERO           | /78/81 | 1  |
| " 180                                  | 71/81  | 6  |
| " 185C                                 |        | 1  |
| " U-17A SKYWAGON                       | 69/81  | 5  |
| " U-17B "                              | 69/81  | 6  |
| " 432B                                 | 77/82  | 1  |
| DASSAULT FALCON/MYSTERE 29F            | 80/82  | 1  |
| DEHAVILLAND CANADA DHC-2 BEAVER (LOAN) |        |    |
| " " DHC-3 OTTER, U-1A                  | 72/82  | 6  |
| " " DHC-6-300 TWIN OTTER               | 70/82  | 3  |
| DOUGLAS C-47A DAKOTA                   | 69/81  | 4  |
| " DC-6BF                               | 71/81  | 1  |
| FAIRCHILD HILLER FH-110G               | 69/81  | 3  |

"I see from the letters that occasionally appear in the SAFO that other members have computers. Perhaps those with systems compatible to mine would like to exchange ideas and data; it should be relatively easy to transfer large amounts of data this way. My system consists of the following: Apple II+(64K) with two disk drives, CITOH F10 Starwriter, and a daisy-wheel printer.






"Also, I was wondering if anyone has thought about a translation service for SAFO. I have books in at least 7-8 languages and I am sure that this is true for many other SAFCH members. I know that Midland Countries publishers in England offer a translation service. Maybe copies of the works that they have already translated are available."

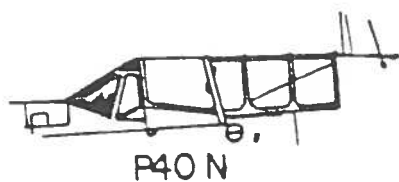
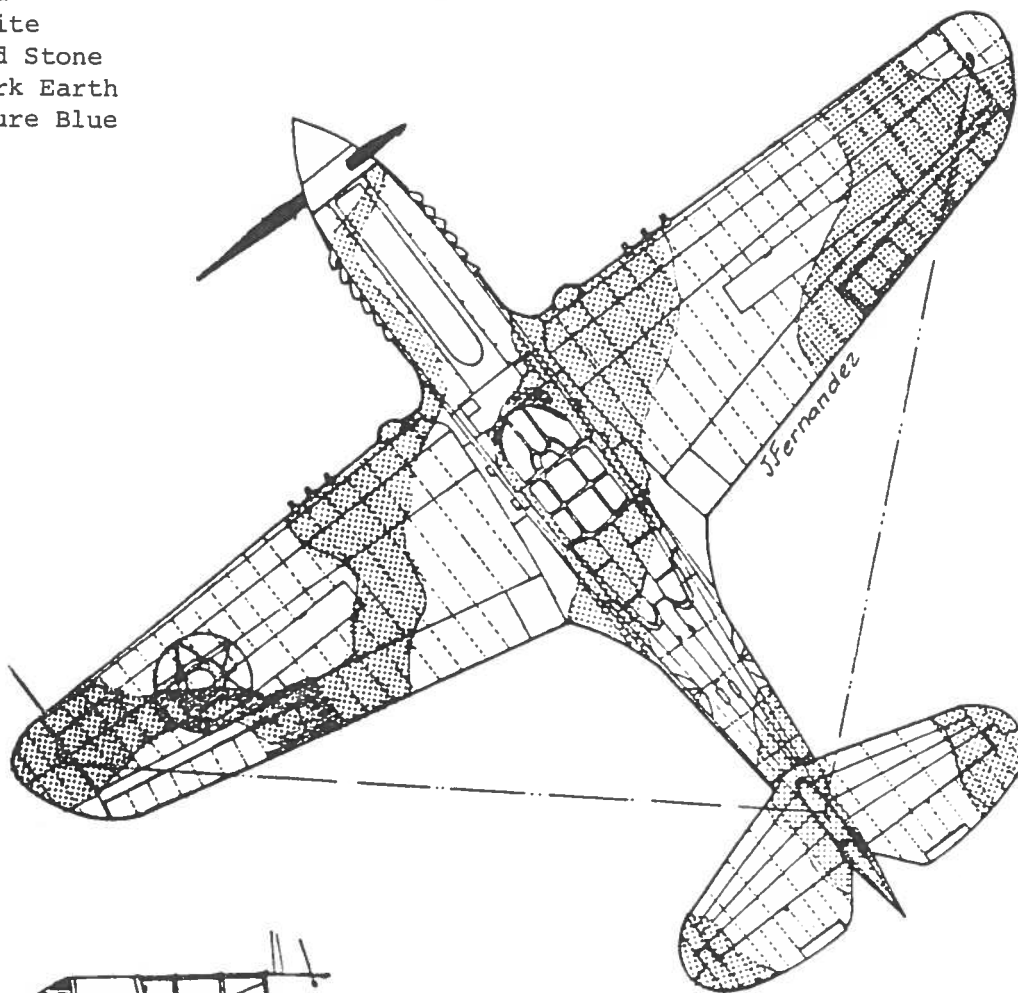
(Editor's note: Chris is making great progress getting his monumental compilation "Aircraft of the Small Air Forces" onto his computer. When this job is completed he should be able to provide up-to-date lists for anyone interested. In the meantime, his lists will continue to be published in the SAFO. Any other members have any thoughts about a translation service?)

Chris Thornburg (SAFCH #175), 4940 Mermaid Blvd., Wilmington, DE 19808



P-40 E

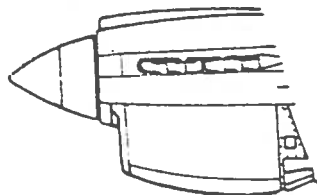
-  Red
-  White
-  Mid Stone
-  Dark Earth
-  Azure Blue



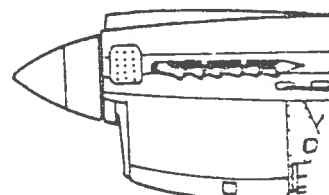
P40 N



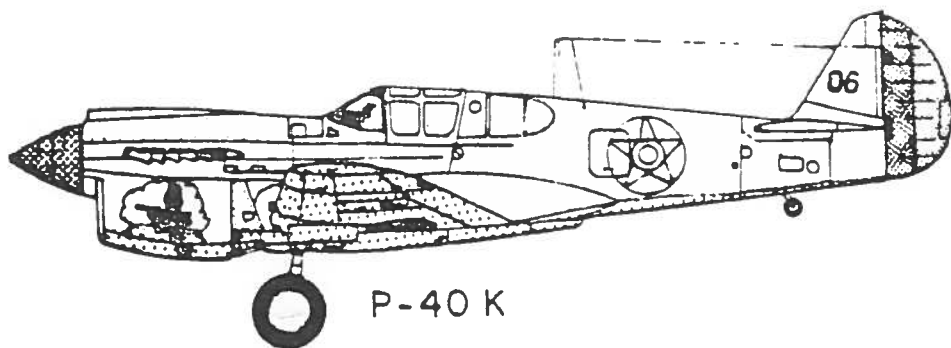
P40M



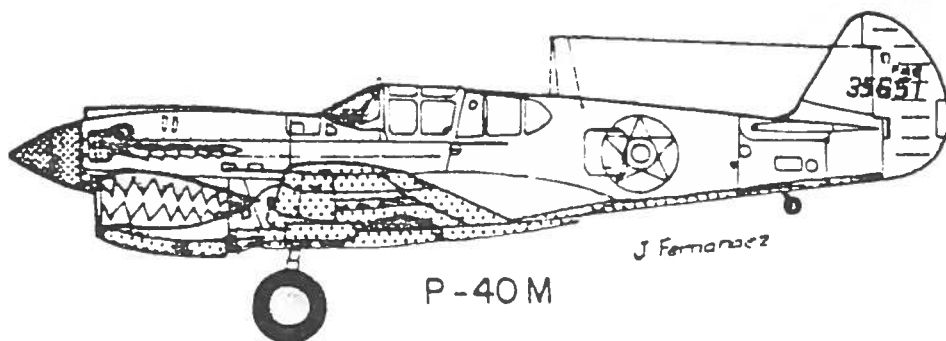
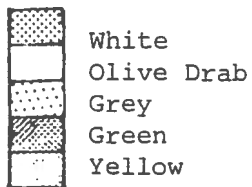
P40 K



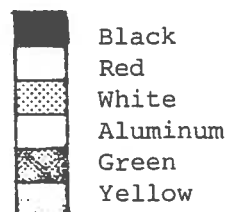
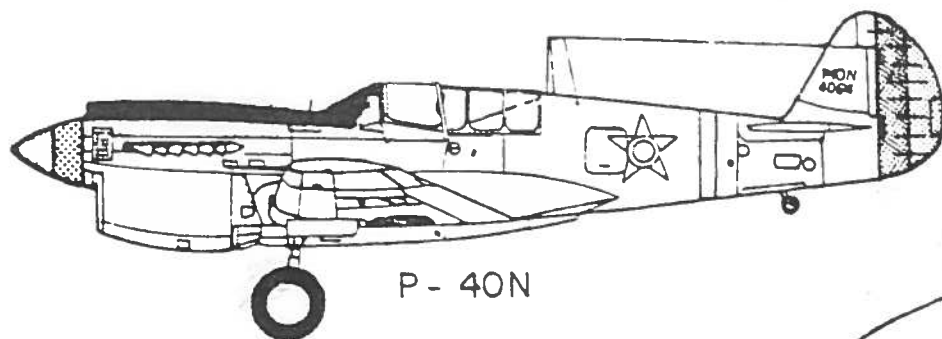
P40M



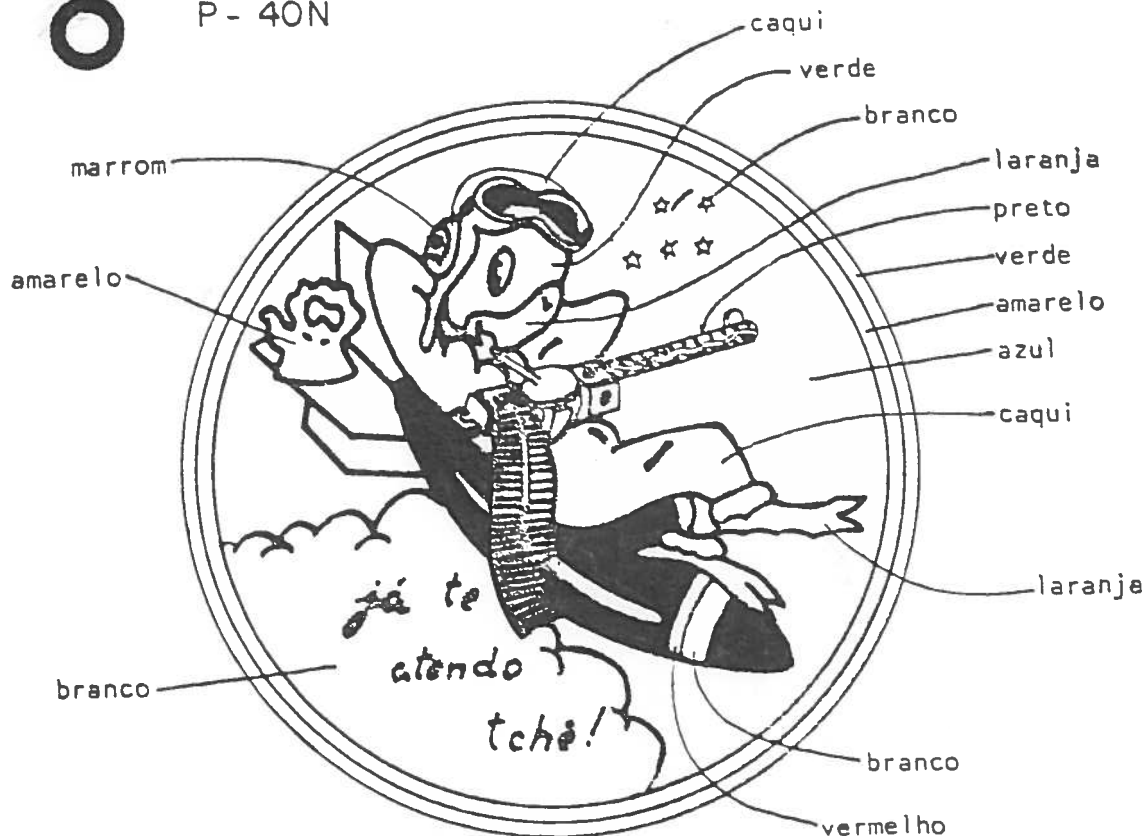
P-40 K



P-40 M

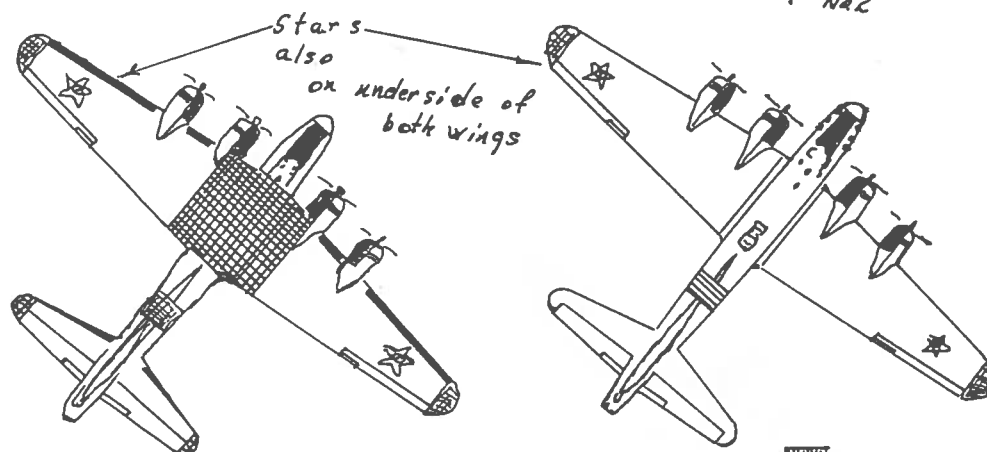
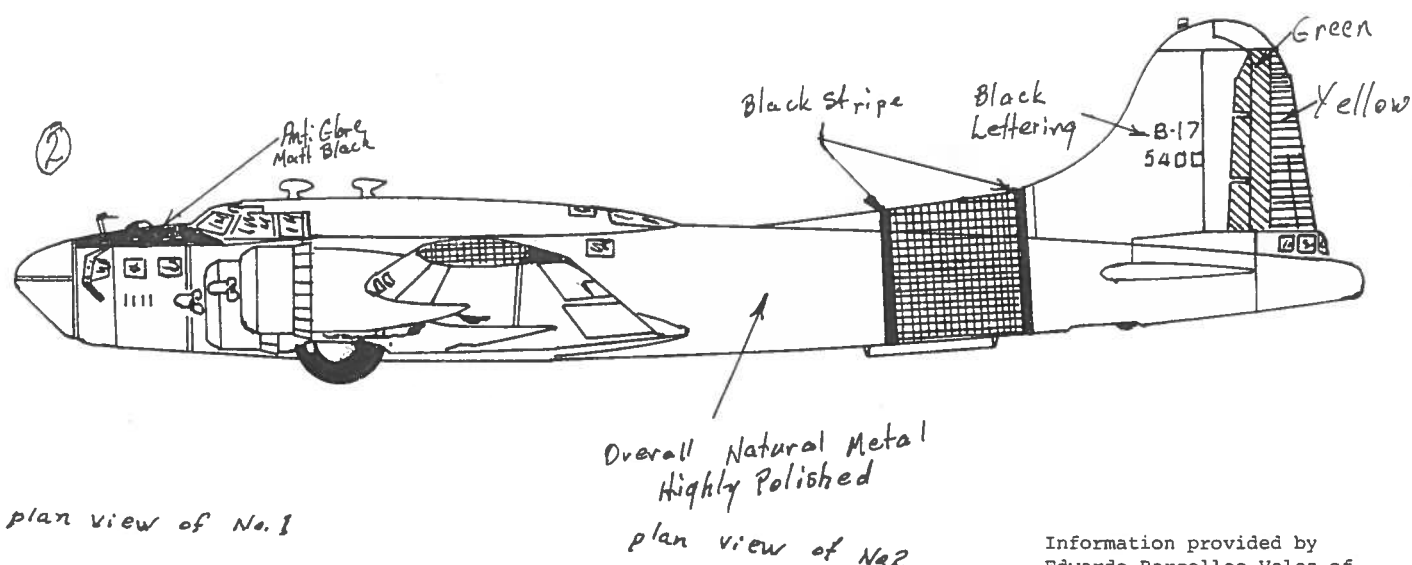
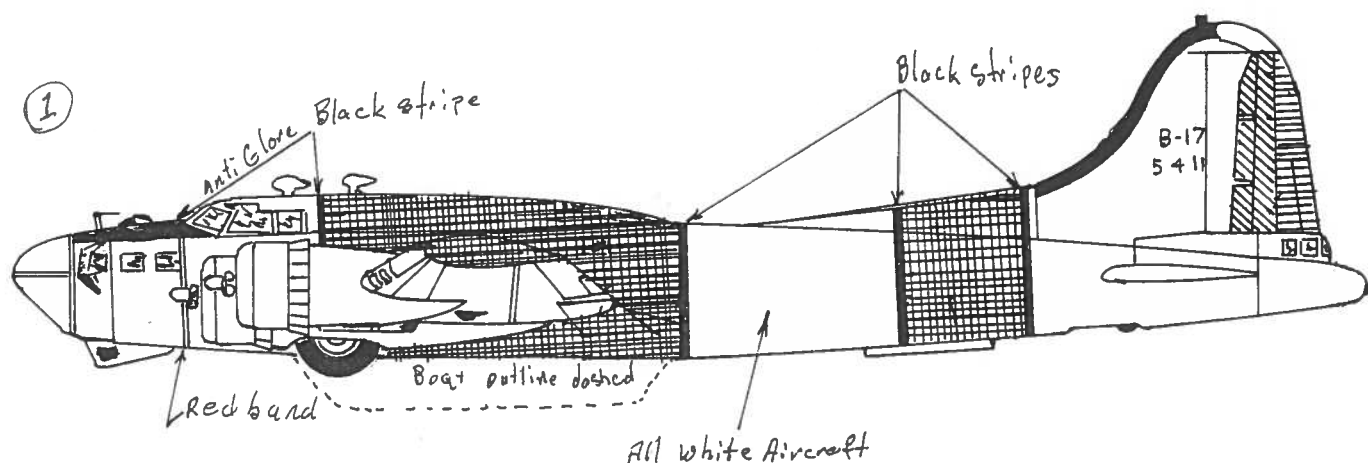


P-40 N



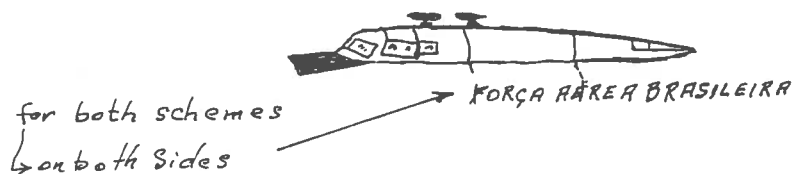


# Search & Rescue – Brazilian Style



Information provided by  
 Eduardo Barcelles Velez of  
 Sao Paulo, Brazil. Drawn  
 by Wayne Denny (SAFCH #422),  
 5113 Gaviota Ave., Long  
 Beach, CA 90807.

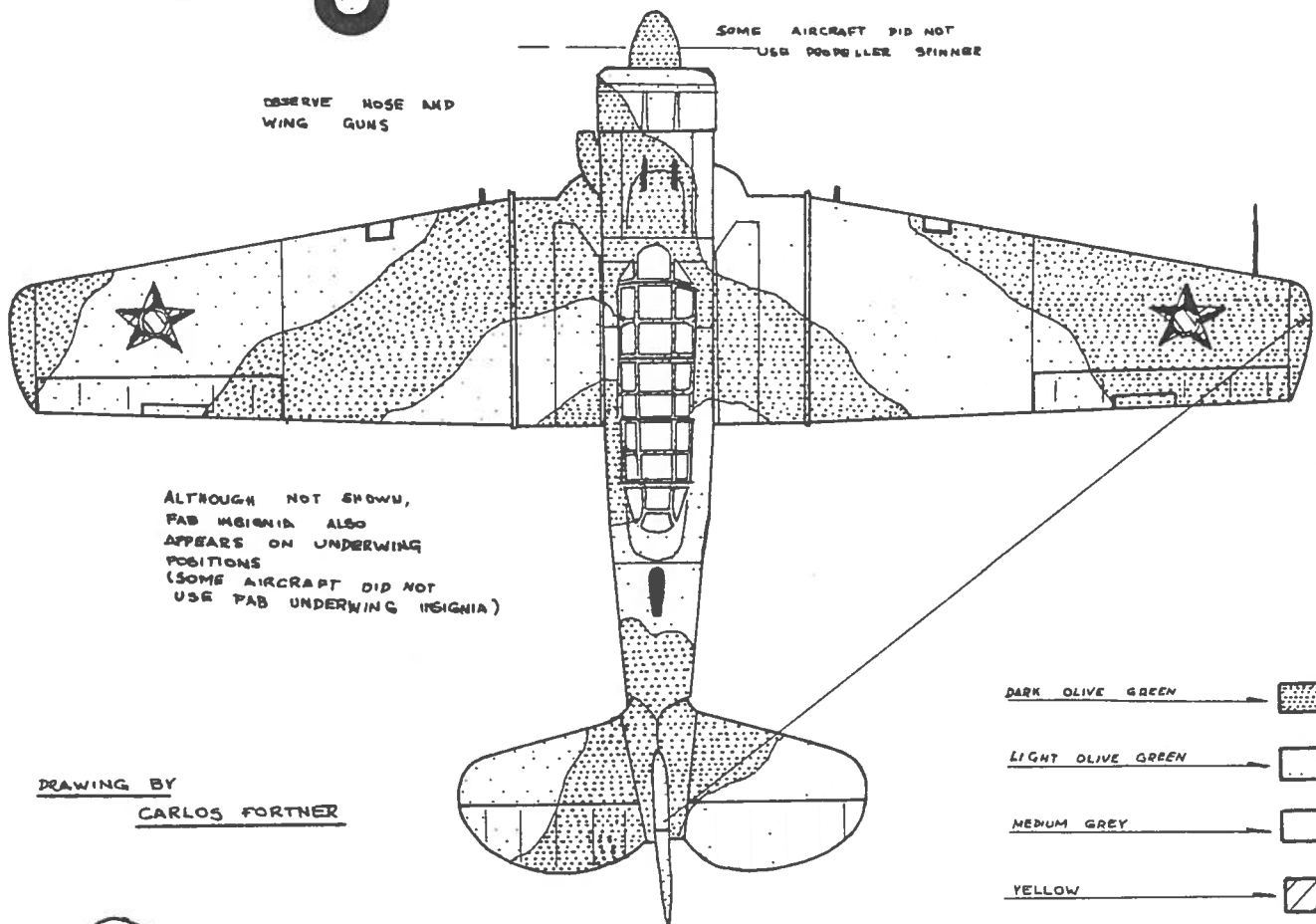
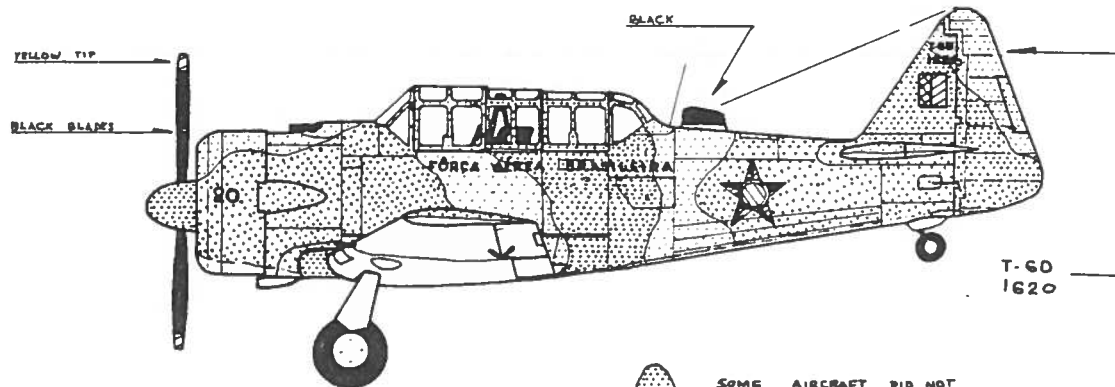
(Editor's note: Wayne has  
 extra decals for Brazilian  
 aircraft that he would like  
 to trade for other South  
 American national insignia.



- very Bright yellow-orange (Day-Glo)?
- yellow 13538
- Green 14109

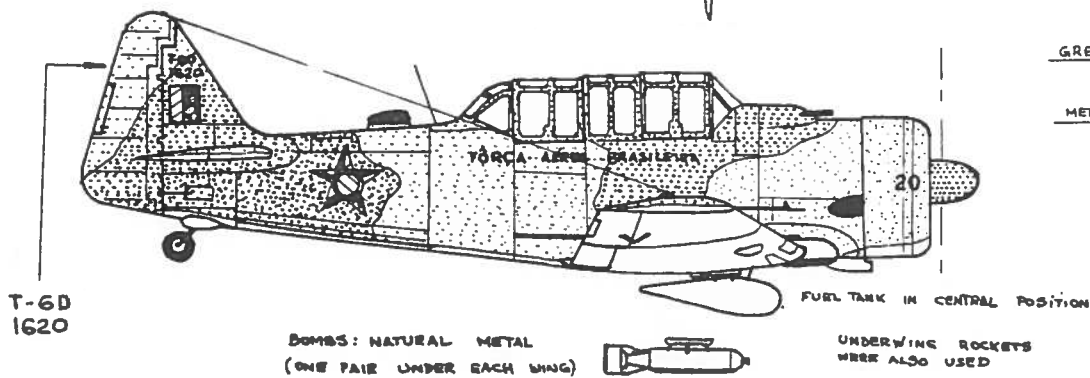
# N.A. (A)T-6D

- NA (AT-6D) FAB 1620 IN CAMOUFLAGE SCHEME, DURING EARLY SEVENTIES. SOME AIRCRAFT WERE DARK OLIVE GREEN WITH EARTH BROWN INSTEAD OF LIGHT OLIVE GREEN.



DRAWING BY  
CARLOS FORTNER

|                   |  |
|-------------------|--|
| DARK OLIVE GREEN  |  |
| LIGHT OLIVE GREEN |  |
| MEDIUM GREY       |  |
| YELLOW            |  |
| GREEN             |  |
| MEDIUM BLUE       |  |



T-6D  
1620

BOMBS: NATURAL METAL  
(ONE PAIR UNDER EACH WING)

UNDERWING ROCKETS  
WERE ALSO USED